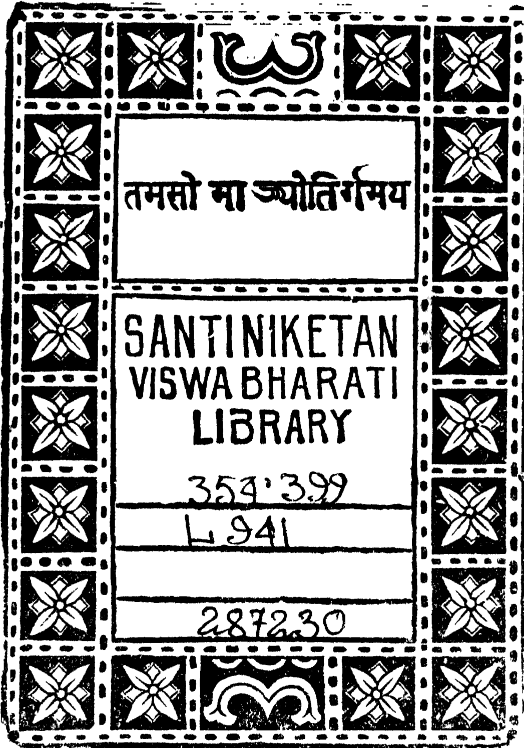

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THE HISTORY AND ECONOMICS OF INDIAN FAMINES

THE HISTORY & ECONOMICS OF INDIAN FAMINES

BY

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ESSAY

The Le Bas Prize, 1913

"Omnis hominis ratio ex eo maxime pendet, quod nudus fragilisque nascitur, quod alieno praesidio indiget atque alienis opibus adjuvari opus habet."

Mariana.

PREFACE

THE following attempt to sketch the history of past famines in India had its origin in an essay which was awarded the Le Bas Prize in 1913. But, with the permission of the adjudicators, I have made considerable alterations both in scope and method. In order to estimate in any way adequately the value of the work performed by the British and preceding governments in their struggles against those natural calamities to which India is periodically subject, it is necessary to consider not merely the actual details of relief organisation, or of works of protection against droughts, but also the economic evolution of that country, and the extent to which that evolution has influenced this work, or been modified by it. It has therefore been deemed advisable, after tracing the history of famines in the first four chapters, to extend the radius of the inquiry and outline some of the main features of the agricultural and industrial changes which have taken place in India within the last century. With this object in view Chapter V. has been completely reconstructed. It is in intent neither a criticism nor, strictly speaking, an historical account, but rather an attempt to discover and trace the growth of those forces which have modified the economic life

of India, and affected the treatment of her "calamities." Comparatively slight use has been made of statistics, because the accuracy of older records and estimates becomes more and more questionable as history recedes into the dimmer light of the past; and it is scarcely possible to calculate at any given date the allowance which should be made for this element of doubt. On the other hand special care has been taken to verify any statements taken from works other than official publications, and when such verification has proved impossible the fact is made clear either in the text itself, or in footnotes. But the official publications themselves present certain peculiarities, which seem to demand a word of preliminary explanation. It is the inevitable result of every foreign dominion, however excellent in itself, that it should suffer violent and continual opposition. Only to a limited degree can it base its power on public opinion and consent. But tacit, qualified, and uninspiring as the sympathy of its subjects must be, it is as essential to success and more negatively powerful than the force of the sword itself. In a democratic government the opposition is constitutionalised; in a bureaucratic or despotic, it is revolutionary. Placed, as it is then, between the paramount necessity of winning such sympathy as it can on the one side, and of defending itself against the attacks of its critics on the other, it is inevitable that the government of India should mingle something of the spirit of a party pamphlet in certain of its official publications. To bear in mind when reading its reports that, in some instances, it has attempted to prove

a case as well as to state facts is no reflection on the sterling honesty of that government.

My sincerest thanks are due to Mr. W. C. Macpherson, C.S.I., for most kindly reading through the essay and giving me many invaluable criticisms. But while expressing my very real sense of obligation to him, I must add that he read the essay in a comparatively early stage of its development, and that he should in no way be held responsible either for the views expressed, or any errors which may have crept into it since. I have also to thank Mr. J. D. Anderson and Father C. Joppen, S.J., for various suggestions, and my brother and sister for reading through the manuscript.

ST. PETER'S COLLEGE,
CAMBRIDGE, 1913.

INTRODUCTION

Few researchers have so far cared to investigate the famines in colonial India. What led to the famines? Who among the social categories were affected and to what extent? The interaction of various classes of people prior to and during the famines; the relief measures—their adequacy or inadequacy; the popular reaction to the relief measures; the impact of famines on the economic, social and political life of the people—are issues likely to provide a wider understanding of the history of the people—both at the micro and the macro levels.

The History and Economics of Indian Famines, by A. Loveday (first published in 1914) is a commendable account of the Indian famines during the nineteenth century. Being a macro level study dealing with an all-India situation, the work has not delved deep into the regional and local conditions. However, the author did succeed in presenting a panoramic overview of the famines in British India, and has attempted to trace the growth of those forces which had "affected the treatment of her [India's] calamities".

The author describes a famine not merely as "suffering from hunger on the part of large classes of the population", but also as "temporary dislocation of employment among large numbers of the population, consequent upon failure in ordinary crops of the season" (p. 1). One of the most important peculiarities of the Indian situation, according to the author, is the fact that "two-thirds of its population are occupied in an industry, the success of which is almost wholly dependent on a sufficient and well-distributed rainfall" (p. 2). He is aware of the adverse effects generated by British rule on "those sections of the population which are particularly affected by periodical deficiency". However, he considers these to be temporary effects, and feels that "the deaths during famines have rarely been the result of local maladministration" (p. 2). Here one can take issue with the author. Recent

historical research has clearly demonstrated that the adverse effects of the colonial rule were not at all temporary but had a lasting effect on the toiling masses who used to be the first victims of famine. The misery and suffering of the people was a direct result of the British land policy and the implicit reliance and support extended to the landlords by the colonial administration.

According to the author, "Indian poverty was not only a question of the distribution of wealth but a question of its production" (p. 5). He points out that the cause of low productivity was not the lack of energy or ability of the cultivator but the "lack of capital and materials suitable for fuel and manure" (p. 7). He rightly puts it that "if the productivity of the land is to be materially increased, the whole social and economic basis of society must first be revolutionised" (p. 8). He attributes the poverty of the cultivator to the small size of his holdings, scarcity of capital and decay of domestic industries. This he does without specifically mentioning the prevailing agrarian relations in the countryside and hardly mentions the oppressive and exploitative character of the colonial rule and its native allies—the landlords.

In the first chapter "Calamities prior to 1770" the author gives a vivid account of what could be described as the recorded famines in India. This is followed by "Calamities and the East India Company", in which he unhesitatingly mentions the gulf of distance which severed the promises and good wishes of the East India Company from the works they performed. Till the first decades of the nineteenth century the Company did not formulate any general principle of relief. Each famine was regarded as an "isolated, unexpected phenomenon", which was dealt with hesitatingly. Rack-renting and high assessment of land revenue during the second and third decades of the nineteenth century became "the contributory factors for famine deaths". The author cites the villainy of those engaged in relief operations during the last years of the Company Raj when "heaps upon heaps died from eating" adulterated food, served as direct relief by the relief society (p. 41).

However, in the third chapter "Calamities from the abolition of the East India Company to the present day" the author distinguishes between the Company Raj and the British Raj. The Company, according to him, lacked any marked aptitude for dealing with the calamities, but it did nevertheless teach the succeeding government certain lessons. Yet, he mentions that many times the Government acted only months after the immediate crisis to relieve the affected (p. 50). By the 1860s the problem was more of distribution and not so much of supply. To the Government it meant "how to obtain the greatest possible return for their money, with the least possible loss of life" (p. 47). The author has given a graphic account of the devastating famines that visited the different regions of the country between 1860 and 1907.

The fourth chapter deals with "Relief organisation" and the last chapter is on "Protective Measures and Wider Economic problems". The book also takes into account the relief measures adopted by the *Durbars* in dealing with famines in the princely states. However, according to the author, the measures adopted in the princely states were imitations of those adopted by the British, the marked difference being the attitude of richer sections—whose cooperation obligatory or voluntary, was more important in princely states than their counterparts in British India.

Historical research in India has recently entered a new genre of investigation. Today the focus is no more confined to the princes and the leaders, nor limited to the activities of the dominant social groups. It is the "people" who have now become the subject matter of modern historical research. The Indian peasant has already found his rightful place in the history of our freedom struggle and so have also the tribal and industrial labourer. Scholars working on modern Indian History will welcome the re-appearance of this work which explores the natural calamities that visited the country at regular intervals, caused suffering and misery to the "people" and accelerated the pace of their exploitation by the colonial state and the dominant native social groups. The book first came out when few writers were investigating the life of the

people and thus provides an account from a rarely found viewpoint of some of the conditions to which they reacted or failed to react. Ideological stances have been changed since then but this is one of the few books providing factual material in an interesting field.

New Delhi

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THE HISTORY AND ECONOMICS OF INDIAN FAMINES

INTRODUCTION

In 1867 the word "Famine" was defined by the Special Commission of that year as "suffering from hunger on the part of large classes of the population." (a) * But the history of famines in India is largely the story of how the meaning of that word has been modified through the force of economic transition and the perfection of administrative organisation. It would at the present day be more accurate to describe these calamities as temporary dislocation of employment amongst large numbers of the population consequent upon failure in the ordinary crops of the season. The word dislocation is purposely used, for the organisation of Relief Works is now such that some form of employment is almost unfailingly provided for those who seek it before a really acute stage of distress has been reached. Deaths from famine, it is true, there are still. But deaths there must always be, when the normal

(a) Orissa Comm., para. 79.

* Letters refer to footnotes; figures, to the Notes at the end, Appendix B, p. 139.

course of economic existence is suddenly revolutionised. A study of the statistics of more recent famines will show that such deaths as have taken place have been in the main amongst the ranks of the aged and infirm, to whom any change in the ordinary climatic conditions, or in the nature of their social life, might well prove disastrous. In but comparatively rare instances have they been the result of local maladministration. Doubtless even in the most recent droughts some have starved and many have suffered. But the decrease in the normal growth of population after a period of deficient harvests, which the Census reports show, is not so much a measure of mortality as a demonstration of the normal effect of the fertility of nature on the fertility of man.

It is difficult to discover even a few generalisations which are applicable to the whole of the great Indian Peninsula, stretching, as it does, from the 8th to the 38th degree of latitude, with its innumerable variations in climatic, political, social, and racial conditions. But perhaps the most striking and, in this connection at any rate, the most important of its peculiarities is the fact that over two-thirds of its population are occupied in an industry, the success of which is almost wholly dependent on a sufficient and well-distributed rainfall. (*a*)

In order to make clear the real famine problem in India it is necessary, therefore, to give some idea, however rough, of the conditions which govern agriculture in that land. The crops are of course numerous and vary both in kind and season

(*a*) Census Report, 1891, 62 per cent.; 1901, 68 per cent.

according to the fertility of the soil and the general meteorological conditions. As an official publication states, they are normally sown and harvested in various parts in every month of the year. (*a*) In some districts, such as Lower Bengal, three crops are harvested in the year. But, taking India as a whole, it is roughly true to say that the population is ultimately dependent for its food on the autumn crops reaped in September and December, and on the so-called dry crops reaped in March and April. With the exception of those districts in which the productivity of the soil is maintained by irrigation, (*b*) both these harvests are dependent on the regularity and sufficiency of the rainfall at the time of the summer and winter monsoons. Strictly speaking, there is but one monsoon, which sweeps over India from the south-west in June and July and retreats again in October and December. Naturally exhausted as it is by the time of its retreat, the rainfall in these winter months is comparatively light. It is, however, sufficient, especially on the black spongy soil of parts of the Deccan, for the cereals, millets, and pulses, which form the staple food of the greater part of the population, and upon which they ultimately rely for their general prosperity and for the payment of the land revenue. (*c*) But it is the south-west monsoon of the summer which is the

(*a*) *Imp. Ga eteer*, vol. iii. p. 6, 1907.

(*b*) As, for instance, Sind and Punjab and Rajputana; and Madras, to a less degree, being irrigated by its rivers.

(*c*) *Vide* Sir J. Strachey, *India*, 1888 edition, pp. 228–9 and 233.

ultimate source of wealth of those rice-producing districts such as Bengal, Burma, Assam, and the land lying between the Western Ghats and the sea. Not only does every deficiency in the actual depth of rainfall mean disaster for the cultivator, but the mere prolongation of the dry season for a week or a fortnight may render vain all hopes of a bountiful harvest for that year. Some parts of the country, of course, are less subject to the vagaries of climatic conditions than others. But only those can be said to be immune from the danger of famine which, like the Punjab or Sind, are supplied with water by vast systems of canal irrigation. For tanks and even rivers may dry up, and wells cease to be of use. This being so, then, the frequency and extent of famines in India should be no cause of surprise. That they are not more extended in area and more tragic in their effects is due on the one hand to the size, and on the other to the varying elevations of that country. History gives no example of a drought extending over the whole of India; and meteorologists declare such an event impossible. Every improvement in the means of communication then must decrease the fatality of local deficiency.

There are, however, many contributing causes, some which no government can remove, and others, the power of which only the gradual evolution of economic and social conditions can be expected to diminish. Of the former perhaps the most important are floods (*a*) and violent storms of hail,

(*a*) The cases in which floods have materially affected the length of famine distress are numerous *e.g.* 1291, 1345, 1630,

which have in many cases prolonged the stress of famine by destroying the crops of the year subsequent to the drought, the many diseases to which the different cereals are subject, and swarms of locusts. Of the latter there is one of all supreme importance—the extreme poverty of the Indian cultivator, and, indeed, of the whole Indian population. Poverty in England, or America, or Germany is a question of the distribution of wealth. In India it is a question of its production. This is not the place to enter into the controversy as to the exact income per head of the Indian population. Suffice it to say that if it has mounted to any considerable degree since the Commissioners in 1880 estimated it at £2 per caput, it is still infinitely below that of any of the leading nations in Europe, if not actually the lowest in the world. An inquiry into the causes of this poverty inevitably involves a discussion concerning the whole economic problem in India, for which this is not the place.

But famine and poverty naturally react on one another, and where a higher standard of living increases the power of resistance and of recovery,

1770, 1783, 1866, 1906–7. The famine of 1776 seems to have been wholly due to excessive rainfall. Scott, vol. ii. p. 47. Calcutta and the S.E. delta districts of Bengal are also peculiarly subject to cyclones. Cf. 1864, 1867, 1876. Orissa is subject to two forms of floods, inundations from the sea, and the overflowing of rivers. Owing to the nature of the country cramped in between the Eastern Ghats and the Deccan, protective measures are peculiarly difficult. For the power of irrigation works to check the destructivity of floods is limited, being dependent upon the elevation and declivities of the land. Cf. Orissa Report, para. 52.

the diminution in wealth consequent on climatic phenomena will be equivalently less.

Beyond this fundamental economic cause there are, however, many others, which, to a greater or less degree, have lent their assistance to the calamities to which India is periodically subject. During the period of Muhammadan supremacy continual wars produced such general exhaustion that the people were vitally sensitive to every variation in the normal annual rainfall; and the purely local famines due to devastation were viewed both by the rulers and historians as the normal result of political rivalry. On the other hand, the changes in the administrative, legal, and economic conditions, which the English rule has effected, though their ultimate goal may be greater industrial efficiency and productivity, have during the period of transition in the last century undoubtedly produced certain temporary effects adverse to those sections of the population which are particularly affected by periodical deficiency. Land tenure has become insecure, (*a*) home industries have been struck by English competition, prices, and often the standard of living, have risen, and temptation to expense and to borrowing that wealth they could not produce has beset the path of those very classes of society which have morally and mentally developed the least.

But from the numerous contributory causes it is difficult, and perhaps arbitrary, to select one or two as being of more vital importance. Only by tracing the history of the famines of the past is it

(*a*) *Vide infra*, p. 115, for a fuller discussion of this point.

possible to view the whole subject in its true perspective.

Before closing this brief sketch, however, it is desirable to estimate the value of those criticisms which have been frequently raised against the agricultural methods of the native cultivator. Too often has his inefficiency or his laziness been given as the primary cause of the extent of agricultural calamities. Every expert who has lived long enough in the country to realise the difficulties which he has to face is, in fact, loud in his praises. (*a*) If the productivity of non-irrigated land is slight (*b*) it is due to the cultivator's lack of capital and lack of materials suitable for fuel and manure, not to his lack of ability or energy. For wood and coal and iron ploughs are, as a rule, outside the range of his income. There are, moreover, some signs at the moment that the slight increase in his wealth, which he has obtained in recent years in certain districts, is already improving the condition of the land. For if the soil has been exhausted in the past, the increase in the demand for oilcake at the present day seems to indicate the probability of its more adequate feeding in the future. (*c*) It is, however, absurd to suppose that a speculative increase from new

(*a*) *Vide e.g.* Dr. Voelker, Report on Improvement of Ind. Agric., 1893; cp. II. *passim.*

(*b*) Sir B. Fuller reckons the normal produce of wheat in non-irrigated and non-manured soil (one-third of the total crop) at ten or eleven bushels per acre. *Studies of Indian Life and Sentiment*, p. 198.

(*c*) The increase in the use of manure for agricultural purposes may to some extent be measured by the demand for cake. *Vide* Report of Irrigation Comm., 1904, sec. 143.

methods of agriculture can weigh heavily in the balance against centuries of inherited knowledge amongst those to whom every penny is at its utmost value. If the productivity of the land is to be materially increased, the whole social and economic basis of society must first be revolutionised. It is not the lack of skill upon the part of the cultivator, but the smallness of his holding, the scarcity of capital, and the decay of domestic industries, which have caused his poverty and his incapacity to withstand the strain of famine and which have hampered the one great industry of India.

But what percentage of the population of Europe would be able to maintain themselves on the savings of their past earnings with enhanced prices and no incoming wages ?

CHAPTER I

FAMINES PREVIOUS TO THE ENGLISH PREDOMINANCE

AMONG the critics (*a*) of, and indeed to some extent among the sympathisers with, English rule in India, there are two widespread fallacies in reference to the causes and effects of famines in that land. The one is that the extent and severity of these disasters at the present day are the direct consequence of English government, and that in the times of the predominance of Hindus and Muhammadans they were not only less extended in area, but also less tragic in their effects; the other is the fatalistic doctrine that to struggle against famines is to struggle against the unalterable laws of nature, as they constitute a natural check on a population which shows a constant inclination to increase more rapidly than the means of subsistence. The detailed criticism of this latter contention must be postponed until the whole problem of the poverty of India is considered. (*b*) But a review of the early famines of which history makes mention will, it is hoped, prove the lack of truth in the half-expressed complementary contention that the famines of

(*a*) *Vide e.g.* R. C. Dutt, *Famines in India, etc.*; W. Digby, "*Prosperous*" *India.*

(*b*) *Vide infra*, cp. V.

modern serve the same useful and necessary purpose as the wars of more ancient history. Wars and famines have reduced the cultivator to the verge of subsistence, and the productivity of land has been checked by his lack of capital. They have not in the long run increased the net capital per head by reducing the divisor of the national income.

In view of the story of the great drought in the first book of the *Ramayana*, (*a*) and the hymns of Rig Veda, filled as they are with prayers for rain, and the endless praises of Indra, the god of the elements, it is difficult to believe in the statement of Megasthenes, that at the time at which he wrote famine had never visited India. (*b*) Indeed, the frequency of the mention of famine in the later history of that land increases in exact proportion with the precision and accuracy in detail of her historians. That there is not more frequent mention and more detailed description can only be attributed to the fact that the Hindus seldom wrote accounts of their lives, and that the Muhammadan historians occupied themselves more with the glories and the wars and the sins of their rulers than with those phenomena of nature which they deemed to be the scourges of an enraged God.

It is impossible to portray here, even in such scant detail as is available, all the famines between 297 (*c*) and 1770.[1] It is a tale of infinite destruction of human life sometimes resultant from, often aided

(*a*) V. Dutt's *Ramayana*, bk i.

(*b*) Megasthenes, *Anc. Ind.*, trans. J. W. McCrindle, 1877, p. 32.

(*c*) Dutt, *Anc. Hist. of India*, vol. ii. p. 317.

by, wars and oppressive government, and occasionally, spasmodically, restrained by the energy of a particular monarch or the generosity of the rich. But, through all the turmoil of wars and the rise and fall of dynasties, despite the absence of any organised system of protection or alleviation, it is possible to trace a development, however slow and indeterminate, in the methods adopted and the success attained in famine relief.

The fatalism of the Hindus and their fortitude and endurance in suffering afforded them little incentive to energetic action. There are, indeed, few pictures of famine which portray such abject lack of power to resist, or willingness to assist, as that given in Kalhana's *Rajatarangini* of the drought in Kashmir in 917–8. "One could scarcely see the water in the Vitasta (Jehlam), entirely covered as the river was with corpses soaked and swollen by the water in which they had long been lying. The land became densely covered with bones in all directions, until it was like one great burial-ground, causing terror to all beings. The king's ministers and the Tantrins (guards) became wealthy, as they amassed riches by selling stores of rice at high prices. The king would take that person as minister who raised the sums due on the Tantrin's bills, by selling the subjects in such a condition." (*a*)

History is, indeed, not lacking in such instances of maladministration and misgovernment adding to the horrors of natural calamities. Whether it was, as on this occasion, the deliberate tyranny

(*a*) Stein's *Trans. of Rajat.*, bk. v. VV. 272–5.

of the Government, or, as was not seldom the case, its want of foresight, which intensified the evil, the result was the same to the masses of the people, and escape from starvation was impossible. One of the most striking examples of the disastrous effects of a mistaken economic policy is to be found in Alla ud Din's attempt to fix the prices of grain at Delhi at a permanent level. Export of all commodities was prohibited, and grain was stored in granaries in the capital, while half the land revenue, which was enhanced, was to be paid in kind. The country had been already partially exhausted by the famine of 1291; the attempt to maintain an arbitrary level of prices completely broke down; and the financial and commercial chaos which ensued from the interference with the natural course of trade rendered the State totally incapable of bearing the strain of a deficient harvest. (*a*) Similarly it was owing to the excessive land cesses of the unfortunate Muhammad Tughlak, and the consequent ruin of the cultivators, that the series of droughts which followed in uninterrupted succession in the years from 1343 to 1345 so exhausted the last sparks of vitality in his Empire that Zia Barni could write without exaggeration, "The glory of the State and the power of the Sultan Muhammad from this time withered and decayed." (*b*) [2]

The impoverishment of the people on these occasions, moreover, was neither exceptional nor caused merely by the brutality of a single despot

(*a*) Briggs, vol. i. p. 356; Elliot, vol. iii. p. 146. Zia Barni.
(*b*) Elliot, vol. i. p. 328. Zia Barni.

or the folly of particular Emperors. It was rather under the heel of the minor officials of State that the people groaned, and their condition was but little better in times of political prosperity than in those of dynastic decay.[3]

War was so continual under the various Muhammadan dynasties that it is scarcely possible to select any one instance as worthy of especial emphasis. There are, indeed, two examples toward the beginning of the sixteenth century of famines, almost purely artificial in their origin, possessing a peculiar interest as being the result, not of the ordinary ravages of war and plunder, but of a deliberate defensive policy. In 1527 Jam Ninda, ruler of Sind, with the same object in view as the Dutch when they opened their sluice gates, ordered all standing corn in that country to be destroyed. The scheme was unsuccessful; but at least the effects were not so fatal as when thirteen years later Mirza Shah Humayun forbade the sowing of corn on either bank of the river and prohibited import. For with a favourable harvest six months later the distress passed rapidly away, whereas in the later reign two years of natural deficiency followed the year of artificial famine, and the people were only delivered from the conqueror to be decimated by want. (*a*)

Still more worthy of note, perhaps, are those occasions when famine forced contending armies to lay down their arms, as, for instance, in 1424, when the Sultan, Ahmed Shah, was compelled to come to terms with Dewal Roy. The famine is

(*a*) Eth., *Report*, pp. 16–7.

modern serve the same useful and necessary purpose as the wars of more ancient history. Wars and famines have reduced the cultivator to the verge of subsistence, and the productivity of land has been checked by his lack of capital. They have not in the long run increased the net capital per head by reducing the divisor of the national income.

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(*b*) Elliot, vol. i. p. 328. Zia Barni.

or the folly of particular Emperors. It was rather under the heel of the minor officials of State that the people groaned, and their condition was but little better in times of political prosperity than in those of dynastic decay.[3]

War was so continual under the various Muhammadan dynasties that it is scarcely possible to select any one instance as worthy of especial emphasis. There are, indeed, two examples toward the beginning of the sixteenth century of famines, almost purely artificial in their origin, possessing a peculiar interest as being the result, not of the ordinary ravages of war and plunder, but of a deliberate defensive policy. In 1527 Jam Ninda, ruler of Sind, with the same object in view as the Dutch when they opened their sluice gates, ordered all standing corn in that country to be destroyed. The scheme was unsuccessful; but at least the effects were not so fatal as when thirteen years later Mirza Shah Humayun forbade the sowing of corn on either bank of the river and prohibited import. For with a favourable harvest six months later the distress passed rapidly away, whereas in the later reign two years of natural deficiency followed the year of artificial famine, and the people were only delivered from the conqueror to be decimated by want. (*a*)

Still more worthy of note, perhaps, are those occasions when famine forced contending armies to lay down their arms, as, for instance, in 1424, when the Sultan, Ahmed Shah, was compelled to come to terms with Dewal Roy. The famine is

(*a*) Eth., *Report*, pp. 16–7.

reported to have "raged throughout the Dekkan," and although the Sultan enlarged the pay of his troops and opened his stores of grain to the poor, the starving people rose in sedition against him on the ground that his "reign was unlucky and displeasing to God." (*a*)

Among the other forces which have contributed their share to the fatality of drought must be included plague and those other contagious diseases the danger of which starvation and deprivation naturally intensify.

On those rare occasions when plague is mentioned by Indian historians it is almost always as the accompanying evil of drought and starvation. But the problem of the exact relationship and interdependence of the two calamities is by no means clear. There is, indeed, but a single instance recorded of an outbreak of plague between 1033 and 1683 in which there is not direct evidence also of famine conditions, (*b*) and a study of more recent plagues tends to show that the virulence of that disease is itself partially dependent on climatic conditions. Moreover, mortality is naturally greatest when the resisting power of the people has already been weakened by lack of sustenance. It does not, however, necessarily follow that these epidemics were unknown in years of plenty. The relation of natural disasters was not the primary object of the native historians. Their references to famines themselves are relatively scarce, and their references to plague are in the main merely

(*a*) Briggs, vol. ii. p. 405. Ferishta. Scott, vol. i. p. 102.
(*b*) Namely, in 1443, in Malwa, Briggs, vol. iv. p. 34. Ferishta.

incidental to their descriptions of the greater tragedies. But whatever the frequency of plague may have been, there can be no question as to its destructiveness, or the terror it inspired. During the famine of 1033 a pestilence is related to have swept across the country, claimed in less than four weeks forty thousand victims in the single city of Ispahan, "depopulated whole countries" in Hindustan, and left not a single house untouched in Moosul and Bagdad. (*a*) There is, unfortunately, insufficient evidence to prove the general effects of the plagues which broke out in the two famine years, 1345 (*b*) and 1399. (*c*) In both instances, as was so often the case, the disease was spread by the armies. But to what degree the troops of Tughlak or of Timur affected the civil population remains unknown, beyond the fact that for two months after the retreat of the latter "Delhi was desolate." More detailed information is, however, obtainable of the famines and plagues of 1574 and 1594. In the first instance, the inhabitants of Gujarat, both rich and poor, were forced to abandon their homes and fly from the country, (*d*) and in the second, as Nuru-l Hakk relates, men were driven to eat their own kind, and the streets and roads were blocked with dead bodies, for the removal of which no assistance could be rendered. (*e*)

Plague was indeed a source of terror to the people

(*a*) Dow, vol. i. p. 85; Briggs, vol. i. p. 103.
(*b*) Elliot, vol. iii. p. 619; *Travels of Ibn Batuta*.
(*c*) *Ibid.*, vol. iv. p. 36. Yahya Bin Ahmad.
(*d*) *Ibid.*, vol. v. p. 384. Nizam-D Bin Ahmad.
(*e*) *Ibid.*, vol. vi. p. 193. Shaikh Nuru-l Hakk.

sufficient alone to paralyse all action. Dr. Whyte has related how in the nineteenth century it was deemed to be "no disease, but an order from the Almighty to remove whomsoever it attacked." (*a*) Indeed, the sentiment expressed by the Emperor Jehangir when he said, "God knows we must patiently submit to His will," (*b*) has been through all history typical of the attitude of the people. In order to estimate accurately its effects in time of famine account must be taken not only of the victims of the plague itself, but of those also who abandoned themselves without an effort to death by starvation, terror-struck by the horror of the double calamity.[4]

There is, however, no small difficulty in attempting to compare the intensity of these earlier famines with those of more modern times. When means of communication were few, and exact information difficult to acquire, it was naturally impossible for writers of memoirs to have precise knowledge of the events which were taking place in neighbouring countries. It is not surprising, then, that only the roughest and most inadequate estimate can be made of the area over which early famines extended. Historians seldom gave details of such disasters as took place outside the dominions of the particular rulers whose history they were writing.

The famines of 1423 (*c*) and 1685 (*d*) are said to have affected the whole of the Deccan (a somewhat indefinite term); that of 1471, the whole of the

(*a*) *Vide* Dr. Whyte's letter. Nathan, vol. ii. App. ii. p. 69.
(*b*) Elliot, vol. vi. p. 346; *Autobiography of Jehangir.*
(*c*) Scott, vol. i. p. 102. Ferishta.
(*d*) Elliot, vol. vii. p. 328. Kafi Khan.

Bahmini dominions.[5] Of apparently greater extent were those of 1630 and 1660. According to Kafi Khan the former not only "prevailed throughout all India, but . . . also extended over the whole of Asia." (*a*) Of the latter, it can only be definitely asserted that of all the territories of the Empire of Aurangzib, Bengal and the Punjab (*b*) alone appear to have produced normal crops.

There is a curious legend among Hindus that the famine of 1396 in the Deccan lasted twelve years, and that a very scanty revenue was obtained from the territory of the Godavery and Kistna for upwards of thirty. (*c*)[6] Actual failure of rains is comparatively seldom suffered for more than two, or at the most three, years in succession, though it is often the case that a year of complete failure is preceded by several of relative deficiency. There is little evidence to show that meteorological conditions have materially changed. The unusually long period of inadequate water supply experienced at the close of the nineteenth century has its exact parallel in a similar phenomenon at the close of the sixteenth. (*d*) Only the 1396 legend and an excessive period of drought in Tartary are in any way peculiar. (*e*)

It is possible to estimate the intensity of modern famines from the published reports of the officials,

(*a*) Quoted Blair, p. 22.

(*b*) Elliot, vol. vii. p. 263. Kafi Khan.

(*c*) Dutt, vol. i. p. 59; Eth., *Report*, p. 99; *Bomb. Gaz.*, vol. i. pt. ii., 1896, p. 637.

(*d*) Elliot, vol. vi. p. 193. Shaikh Nuru-l Hakk.

(*e*) *Circa* 1630. Said to have continued for seven years. Dow, vol. iii. pp. 128–9.

and (though it is only for the most recent famines that both sets of figures are available) by a comparison of the size of the population in the affected areas and the mortality statistics. In the curious mixture of picturesque, almost rococo, exaggeration and matter-of-fact simplicity, which characterises the writings of Indian historians, the reality of the calamity is displayed in a more telling, if more gruesome, manner. But it is impossible to compare. Too much is dependent on the histrionic power of the writer. But two or three examples will suffice to test the truth of the theory that in past times the suffering and mortality were less than at the present day. In the famine of 1291, for instance, so intense was the misery that, despite the fact that "the Sultan and nobles did all they could to help," whole families would go together to seek a less cruel death by drowning themselves in the river. (*a*) In 1540 no less than two-thirds of the population of Vijayanagara perished from want. (*b*) It is related how in 1555 the people endeavoured to support life on the seeds of acacia, and, more striking still, on the hides of their dead beasts, (*c*) while on some occasions even greater extremes were reached, and death was avoided by the stronger by the destruction of the weaker, fathers even devouring their own children. (*d*) Nor did the people alone suffer, for in 1345, as so often subsequently, the whole stock of horses and

(*a*) Elliot, vol. iii. p. 146; vol. vi. p. 47. Zia Barni.

(*b*) *Investigador Portuguez*, vol. xvi. p. 279.

(*c*) Elliot, vol. v. p. 490. Mulla.

(*d*) *E.g.* in 1556 in Hindustan, Elliot, vol. vi. p. 21. Abdu-l Fazl.

cattle in the country round Delhi is said to have perished from lack of fodder. (*a*) But the most vivid description of any famine that has come down to us is of that of 1630. It is a story of want and plague and war, against which all the energy of Shah Jehan was in vain. "The war in the Deccan produced nothing but desolation in that country. An extraordinary drought burnt up all vegetables and dried up the rivers," (*b*) and, as Peter Lundy relates, "the men and women were driven to that extremitie for want of food that they sold their children for 12d., 6d., and [3?] pence apiece. Yea, and to give them away to any that would take them." (*c*) "Life was offered for a loaf, but none would buy; rank was to be sold for a cake, but none cared for it; the ever-bounteous hand was stretched out to beg for food; and the feet which had always trodden the way of contentment walked about in search of sustenance." (*d*)

Thirty thousand persons are said to have perished in the single city of Surat, and when the rains did finally break, the country round was inundated by floods, which prolonged the scarcity into the following year. (*e*) In Tartary, populous and flourishing provinces were converted into solitudes and deserts; and a few, who escaped the general calamity, wandered through depopulated cities alone. (*f*)

(*a*) Elliot, vol. iii. p. 244. Zia Barni.

(*b*) Dow, vol. iii. pp. 128–9.

(*c*) *Hak. Soc. Pub.* (Second Series), vol. xviii.

(*d*) Elliot, vol. vii. pp. 24–5. Abdu-l Hamid Lahori.

(*e*) Foster, *Eng. Factories in Ind.*, 1630–33, pp. 180–1. A Dutch factor at Surat to a member of the Dutch Council at Batavia.

(*f*) Dow, vol. iii. pp. 128–9.

Special emphasis has been laid upon this famine, not only on account of the vividness of the descriptions, but because it is one of comparatively few instances in which direct evidence is discoverable of a genuine attempt on the part of the Government to alleviate distress. Another example of the effect of these calamities in the past, in some ways scarcely less illuminating, is afforded by the revolution in customary exchange values in 1628, when camels are said to have been sold for a single rupee each. (*a*)

Not in the fact of the disaster itself, however, but in its gradual and final recognition lies the real tragedy. That final recognition in this case is to be found in the law books both of the Muhammadans and the Hindus. According to the former, "the practice among free men and women of selling their offspring in time of famine is extremely improper and unjustifiable." (*b*) According to the latter, one maintained in famine is permitted to release himself from servitude for a pair of oxen.[7]

The economic condition of India before Western civilisation was superimposed was so profoundly different in character from that of the present day, that little similarity can be expected between the ancient and modern systems of relief. Roads and railways there were none, canals and rivers were rarely navigable, and the vital organisation of society lay rather in the village units than in the central government. It was therefore impossible for the rulers to import corn on a sufficiently large

(*a*) Eth., *Report*, p. 63.
(*b*) W. H. Macnaughton, p. 314.

scale to provide for the destitute. It was equally impossible to create at a moment's notice an administration capable of dealing adequately with the distribution of supplies or the organisation of labour. Within the bounds of practicability, however, both these methods of relief were attempted. But they did not, as at the present day, constitute the main basis of the general system. If wars and lack of means of communication hampered importation, they limited exportation correspondingly. It was to the supplies of stored grain that the rulers and the people chiefly looked for protection against drought. The Muhammadan Emperors maintained these stores in their capitals as war chests, and the cultivators kept what surplus they could from their years of bounty as an insurance against those of dearth. How often such provision proved successful cannot be estimated; for only of the droughts which proved disastrous does record exist. According to the benevolence of the rulers and the severity of the famine the corn was either sold or given away.[8] In some cases, indeed, there was no corn to sell, (*a*) and in others the people had no means wherewith to buy.

To Muhammad Tughlak is due the honour of being one of the first to take really vigorous measures to alleviate the effects of drought. The disaster which befell his dominions in 1343 was, as has been shown, caused partially by his own folly, and fear of the anger of his people and the ruin of his kingdom lent impulse to his efforts. In addition to a distribution of six months' supply

(*a*) *E.g.* 1556, Elliot, vol. vi. p. 21. Shaikh Abdu-l Fazl.

of corn to the inhabitants of Delhi, (*a*) advances were made from the treasury not only for the ordinary cultivation of the land, but in addition for the digging of wells. Indeed, a general system of compulsory labour, the failure of which Zia Barni relates, seems to have been attempted. (*b*) But the people, crushed down by the excessive load of taxation, refused the work which was offered them, abandoned themselves in some cases to cannibalism, and finally compelled the Emperor to allow them to migrate to Bengal, which only three years before had revolted from his rule. (*c*)

The energy of the Government of Delhi on this occasion was only exceeded by that of Shah Jehan in 1630, three years after his accession. Under his direction, five thousand rupees were distributed every Monday to the deserving poor, and in Ahmedabad, where the famine was at its height, fifty thousand. The same principle of doles of food was also adopted, and taxes were subsequently remitted to the extent of seventy lacs. (*d*) But a departure was made from the generally established precedent, in that relief was not confined to the capital; for especial mention is made of the fact that the officers of Burhampur and Ahmedabad and the country round Surat were ordered to establish soup kitchens and alms-houses. In 1596, it is true, public tables were spread, some sort of relief works were estab-

(*a*) Elliot, vol. iii. p. 620. Ibn Batuta.

(*b*) *Ibid.*, p. 245. Zia Barni.

(*c*) Briggs, vol. i. pp. 425 and 428. Ferishta.

(*d*) Elliot, vol. vii. p. 25. Aminar Kazwini. Dow, vol. iii. p. 129.

lished, and the army was increased to give maintenance to the poor; (*a*) and during the famine of 1577 in Kutch, and that of 1746 in the district round Bombay, relief was afforded by the direct distribution of cooked food to the starving. (*b*) But there is in these, as in so many other cases, no evidence to show that anything was done outside the limits of the capital. The poor vacated the country for the towns on such occasions, and pestilences followed.

The actual progress that was made in remedial measures is difficult to estimate. The great Moghul Emperors, Shah Jehan and Aurangzib, demonstrated perhaps the greatest powers of organisation. But Ferishta relates, that so early as 1396 Sultan Mahmud kept a train of ten thousand bullocks on his own account, constantly going to and from Malwa and Gujarat for grain, to supply his stricken kingdom of Bahmini. (*c*) By 1630 the actual transportation was left to private enterprise, which was promoted by the removal of taxation. (*d*) In 1660 grain was purchased by the Government directly from the producing provinces, and subsequently sold at such prices as the people could afford to pay. (*e*) According to Kafi Khan, the organisation on this occasion so far excelled all past efforts that relief was carried into every corner of the great Moghul dominions, and, despite the

(*a*) Elliot, vol. vi. p. 193. Shaikh Nuru-l Hakk.
(*b*) Eth., *Report*, pp. 25–6.
(*c*) Scott, vol. i. p. 56. Ferishta.
(*d*) Elliot, vol. vii. p. 25. Aminar Kazwini.
(*e*) *Ibid.*, vol. vii. pp. 263 and 246–7. Kafi Khan.

expense to the Government of this distribution of food, the rents and taxes of husbandmen were remitted when they fell due. (*a*)

Subsequent history shows that the first impulse of the people when food is scarce is to migrate into neighbouring districts. That so little mention of the fact is made in early history probably merely proves the generality of the custom. Indeed, only two references to this habit have been found in the writings of historians previous to the eighteenth century, and in the one instance it was the attempt of the Emperor to check it which drew the attention of the chronicler, (*b*) while in the other it was the almost total depopulation of the towns. (*c*) The migratory habits of the people on these occasions, the stores of grain which wise Emperors of the past had maintained, and, above all, the principle of mutual assistance and family support of the aged and weak, were the real bulwarks in the past against the perils of destitution and the ravages of starvation.

> " I, however, will give and enjoy,
> And I will maintain my relations,
> The rest I will protect :
> Such is a wise man's vocation." (*d*)

Of all the preventive methods adopted by various governments, undoubtedly the most important has been irrigation. Irrigation in India is as old as history. It is mentioned by Strabo (*e*) and Dion

(*a*) Elliot, vol. vii. pp. 263 and 246–7. Kafi Khan Dow, vol. iii. p. 310.

(*b*) Namely, in 1343, Briggs, vol. i. pp. 425, 428.

(*c*) Namely, in 1471, in Tuhirgana and Marhutt in the Bahmini Dominions, Briggs, vol. ii. pp. 493–4.

(*d*) The Dasaratha Jataka. (*e*) Strabo, *Geography*, bk. xv.

Chrysostom (a) with wonder, and in later times it was the special pride of the Muhammadan Emperors. But though, as has been noticed, Muhammad Tughlak had wells dug during the famine of 1345, and although the waters of the canals built by Akbar were for "rich and poor alike," still in the main the vast works of the Moghul chiefs were executed rather with a view to increasing the magnificence of their capital, than with the direct object of promoting the fertility of the soil. It is roughly true to say, and it was the natural consequence of topographical situation, that the work of the Muhammadans lay rather in the construction of canals, that of the Hindus in the construction of tanks and digging of wells. This protection of land against drought, and the storage of grain by the people and the Government, constituted the two main protective measures, and were indeed the only two possible, when importation was dependent upon cattle, which themselves often perished from lack of grass.

In Appendix A is given a list of the more important famines between 297 and 1907. A fact which the evidence already given should to some extent have made clear will there be still more strikingly noticeable, namely, that famines tend to recur in cycles of five years, and the greater ones in cycles of fifty years. Roughly speaking, it is towards the middle and the end of each century that the most disastrous calamities have fallen upon India. The famines of 1343-45, 1540, 1630, 1747, and 1837 were all intense in certain districts, but comparatively

(a) Dion Chrysostom, *Oratio xxxv.*

limited in area, and short in duration. That of 1396, which is said to have lasted twelve years, and those of 1596, 1660–1, 1803–04, 1896-1900 are the most fatal and the most extensive of which history makes mention. It is but natural that no reference is made by early writers to the famines of less import. A study of those at the beginning of the eighteenth and nineteenth centuries, however, is sufficient to prove the general truth of the rule that, after an exceptional period of drought, a time of comparative prosperity may be expected, varying in length from forty to fifty years.

It seems difficult to attribute the regularity of these cycles to chance, and whether its cause be discoverable or no, it is at least sufficiently certain to be of more than mere academic interest. The mere fatality of droughts in the past, it should be noted, is not in itself a fair test of the actual meteorological conditions. The facts must be studied more closely. Excessive death-rates are recorded, for example, on four occasions between 1660 and 1747. (*a*) But in every instance the ultimate cause can be traced to the disorganisation of society produced by war. There is, indeed, no necessary correlation between the severity of the drought and the intensity of the famine. A contemporary writer states that in 1677 "all persons were destroyed by famine excepting two or three in each village." (*b*) But from the detailed list of food prices which he adds, grain appears never to have risen above three

(*a*) 1677, 1685, 1702–4, 1739. The famine of 1739 was due largely to the plundering of the Persian army.

(*b*) Mackenzie MSS., vol. iv. p. 34.

times the normal level, whereas in 1709,[10] when the mortality was comparatively negligible, it is reported to have been no less than two-and-thirty times higher than in normal years. If the account given by Nicolas Manucci in his *Storia do Mogor* (*a*) is to be believed, no less than two millions of the population of the Deccan perished from the effects of drought and plague in the opening years of the eighteenth century. The absence of more detailed information renders it, no doubt, impossible to estimate the extent to which the mortality was due to disease. But it is at least justifiable to conclude from this very lack of information that the drought was inconsiderable in comparison with that of 1660, and though allowance should be made for the epidemic, still the more probable cause of the extent of the mortality is the impossibility of affording relief. Aurangzib was, indeed, owing to the wars with the Mahrattas, no more in a position to organise relief on this occasion than he had been in 1685 at the time of his campaign against Abul Hasan. But though the degree of mortality affords inadequate evidence for gauging the deficiency of rainfall, though the descriptions of the extent and nature of the drought are, as a rule, scanty and unconvincing, still it is not impossible to form a rough estimate of the real conditions. Account must be taken of the strength of the Government and prosperity of the people at the time, of the absence or presence of contributory causes of distress, of the dramatic effect which the drought had upon the minds of

(*a*) *Storia do Mogor*, Nicolas Manucci. Trans. W. Irvine, vol. iv. p. 97.

contemporaries. The accounts of native historians, to whom such calamities were not unusual, are, as a rule, of more value than those of temporary sojourners in the land. Descriptions of the worst famines of the past have passed down by word of mouth from generation to generation. Statistics may be lacking; but those greater disasters which have recurred in India with almost mathematical accuracy, stand out vividly and unmistakably enough in the pages of history.

CHAPTER II

FAMINES AND THE EAST INDIA COMPANY

THE year 1770 forms a useful date at which to begin a sketch of the history of those famines which occurred during the time of the growing predominance of the East India Company. Its importance does not lie in the discovery of any new principles of relief, but rather in the fact that that Corporation, which had assumed the revenue administration of Bengal, Behar, and Orissa in 1765, became for the first time responsible for the steps which were taken to ameliorate distress. Moreover, the disaster of this year stands out naturally as a landmark in the literature on the subject, because it has been immortalised by the brilliant pen of perhaps the most brilliant of all writers of Indian history. Possibly, indeed, too much attention has been concentrated on this single event. No one can question the justice of Sir William Hunter's attack upon the policy of the East India Company on this occasion. But it would be wrong to conclude, from the predominance that has been given to this particular famine, that the Company ever learnt its lesson thoroughly, or showed great ability in subsequent years. If the mortality in 1783 was less, it was

mainly due to the lesser intensity of the famine; and though the expenditure was greater in 1832 and 1837, its benefits were counterbalanced by an almost equal incompetency. The difficulties which the British had to face during this period were, it is true, immense. They had no choice but to abandon the heritage they had received or to march forward. War was inevitable were they to protect their possessions, and neither the check which they gave to the predatory expeditions of Haidar Ali, nor the death-blow which they dealt to the ascendancy of his son, nor the downfall of the Mahratta house, can be subjects of regret. But when every allowance is made for the difficulties which beset its path, and for the lower standards of humanity at the time, it is still little exaggeration to say that the Company was more concerned with the dividends of its shareholders than with the lives of those from whom those dividends were drawn.

As the Orissa Report said, there is "extraordinarily little information about this famine." (*a*) From the death of Aurangzib in 1707, and the subsequent disruption of the Moghul Empire, India passed through some half a century of violent transmutation, during which the French and the English struggled for predominance. There was little time to write reports on, or pay attention to, mere natural calamities, and fortunately, with the exception of that of 1747, (*b*) they were comparatively

(*a*) Orissa Report, para. 13.

(*b*) Eth., *Report*, p. 40. "Not a drop of rain nor a blade of grass."

slight. Nor, indeed, was the position of the Company in Bengal in 1770 so long assured that they could boast any sort of efficient administration. The double government initiated by Clive was proving unworkable, and merely gave greater opportunities for fraud and peculation. It was not till 1769 that the supervisors were appointed; and in reality the famine relief was mainly administered by the native government.

The primary cause of this calamity was a failure of the autumn and the summer rains in northern and eastern Bengal, and more especially in Behar. But, as is almost always the case in times of serious want, the crops in the two preceding years had been deficient. The author of *Seir Mutagherin* asserts, moreover, that smallpox broke out in certain districts contemporaneously with the beginning of the real famine distress, and that "villages and whole towns were swept away by these two scourges." [1] The rains in Behar in 1768 were excessive, and floods had lent their aid to the work of destruction, while in Gaur "plague" broke out from the corpses which had been abandoned to putrify in the river. (*a*)

One of the most striking features of the policy of the East India Company is the gulf of distance which severs their promises and their good wishes from the work they actually performed. Thus in February 1770 the Government wrote to the resident of Moorshedabad that he might be assured of their concurrence in every measure for the relief of the poor, and earnestly recommended him to

(*a*) It is highly improbable that this was the real plague.

take every step towards this purpose. (*a*) Yet in June, the resident himself writes that six in every sixteen had died. (*b*) Similarly in November 1769 the Court of Directors asserted, " We have taken and shall pursue every means in our power to relieve the miserable situation the poor inhabitants must be involved in from this dreadful calamity." (*c*)

The methods actually adopted were unwise, unorganised, and ungenerous. Reliance was especially laid on the policy of embargoes on export and the removal of duties on import. A proclamation against hoarding was made in Calcutta, (*d*) which was, however, unnecessary, as rice had become scarce in that town so early as the beginning of August 1769, while in the following year it was unable to supply itself, so that in April fifty rupees worth of corn was daily distributed free of cost. A similar policy was adopted in Patna, Burdwan, and Behar, (*e*) and Sir William Hunter estimates that some £4000 were contributed in six months for a starving population of some four hundred thousand souls. (*f*) It is true peculiar difficulties stood in the way of the Government. The means of communication were deficient, the English rule was confined to a comparatively restricted area, the troops which battened on Behar could not be removed for political reasons, and, as Hamilton said, " no adjacent country was capable of supplying corn." (*g*) But

(*a*) G., p. 414. (*b*) *Ibid.*, p. 418. (*c*) *Ibid.*, p. 413.
(*d*) Hunter, *Rural Bengal*, p. 35.
(*e*) Blue Book, 1878, vol. xii. paras. 19. 6.
(*f*) Hunter, *Rural Bengal*, p. 402.
(*g*) Orissa Report, para. 18.

be this as it may, the fact remains that the real work of relief was left to the generosity of private individuals. Some £15,000 was contributed by the natives for the importation of corn, as well as a supplementary £3000 for general charity, (*a*) and it was such men as Shittabory who kept a fleet of boats employed between Benares and Patna, who made real endeavour to do what lay in their power.[2]

Despite the thirty-three per cent. of the population who are said to have perished,[3] the extent of the calamity would in the end undoubtedly have been less had the Company realised the truth of that fact, which bitter experience alone has succeeded in teaching, that on such occasions immediate generosity is ultimate economy. The subsequent depopulation of the country was due, not merely to the high mortality, but also to the refusal of the Government to make any adequate reduction of the land tax. In Moorshedabad Rs.25,77,428 more were collected in 1771 than in 1769; and though the Company was "induced to grant a remission to the farmers of Burdwann province of about 2½ or 3 lakhs," in reality less than one was finally remitted, and that duly demanded in the following spring. (*b*)

In estimating the general value of the work performed certain difficulties present themselves. According to Sir George Campbell, the interference with freedom of trade, contrary to modern economic laws, was not adopted to a very great or a very injurious extent. (*c*) The embargo on rice was in

(*a*) Hunter, *Rural Bengal*, p. 400. (*b*) *Ibid.*, p. 402.
(*c*) G., p. 421.

point of fact removed in November. (a) Whether the application of the so-called modern economic laws would have been wise on this particular occasion seems open to doubt. The amount of exportable corn was negligible, the prices in Bengal itself were higher than in the open market, and in all probability the interference was non-injurious because without effect. Moreover, importation by the central authorities, and it was meagre enough on this occasion, is the primary essential of relief when the means of communication are defective and the capital of the corn dealers limited. It is, in fact, on account of the paucity of the relief afforded, and for the lack of general organisation, that the Government is open to criticism.

The comparatively detailed review which has been given of the events of this year will afford a basis of comparison with those of more recent times.

There can be but little doubt that the Company had been seriously frightened by the final effects of the 1770 disaster, and when, thirteen years later, a similar failure of crops threatened, they faced the danger energetically and courageously, if not wisely. A committee of grain was established for the Bengal districts, with full powers to control trade and prices and establish granaries when it seemed advantageous. Unfortunately the calamity of 1783 differed widely from that of 1770, and those methods which might conceivably have been wise in the former were merely aggravating in the latter case. The failure of crops was greatest in the North-West Provinces, Oudh, the Punjab, and

(a) Hunter, *Rural Bengal*, p. 409.

Madras. (*a*) In Bengal it was less extensive, and only Behar and Purneah were really seriously affected. (*b*) Moreover, in the preceding year the harvest had been unusually abundant. The Company was, however, nervous, and possessed by the idea that it had no other resort but to its former stores. Collectors were ordered to investigate the existing stores and forbid, by threats of "exemplary" punishment and seizure, any attempt to restrict sales, (*c*) and an embargo was placed on the export of grain. (*d*) If the distress had been intense in Bengal, it is conceivable that this attempt to treat the district like a town in state of siege might have been justified. As it was, trade was undermined, and Madras, which had always imported largely from Bengal, and now was almost wholly dependent on her, was unnecessarily starved.[4] In Bengal, until the floods in 1784, the distress was avoidable, and the Company was half proud of its success, half apologetic to those less fortunate parts which it had refused to assist. But even in Bengal its success was not striking. The cause has been stated trenchantly by Warren Hastings: "Yet I have reason to fear that the cause existed principally in a defective, if not corrupt and oppressive, administration. I am sorry to add that from Buxar to the opposite boundary I have seen nothing but traces of complete devastation in every village." (*e*)

In Madras the actual failure of crops was

(*a*) G., p. 422. (*b*) G., p. 423. (*c*) G., p. 424.
(*d*) Campbell, *Report*, para. 42.
(*e*) Girdlestone, *Report*, p. 9.

aggravated by war,[5] and, as has been shown, the sudden cessation of importation. Distress had begun in the preceding year, and, " notwithstanding the liberal contributions of charity, thousands are reported to have expired daily through want." (*a*) With this check on their one source of supply the starvation for a time became more intense ; but with the re-establishment of peace and the unexpectedly heavy crops of 1784 the price of corn fell to an almost unprecedented level, (*b*) and the Government found themselves with an unsaleable surplus stock in their hands. (*c*) In the other districts, as Hari Charan narrates, it was the lack of employment almost as much as the lack of food that constituted the overwhelming difficulty. (*d*)

A more genuine attempt was made on this occasion to administer the historic policy of their predecessors by means of the corrupt agents at their disposal. Only in one point did the Company endeavour to strike out a new line of their own. In September and October of 1783 some 9000 of the starving population were deported in parties of 1000 to the northern districts of Madras. (*e*)

Though no widespread distress was felt in India again until 1803, the century did not close without local disasters. In Jessore, Nuddea, and parts of Central Bengal the rice crops were destroyed and the people isolated by a series of floods which terminated, November 1787, in a cyclone, which swept across almost the whole of that province. (*f*)

(*a*) G., p. 422. (*b*) G., p. 24. (*c*) Girdlestone, *Report*, p. 15.
(*d*) Elliot, vol. viii. Hari Charan Das, p. 230.
(*e*) Dalyell, *Mem.*, p. 14. (*f*) G., p. 427.

Again, as in the famine four years later in Bombay and Madras, (*a*)[6] export of corn was restricted. In the latter instance, however, though the transportation of corn from Bengal was left to private enterprise, sale prices were fixed and doles were made to the poverty stricken.[7] The native government, not content with this alone, made extensive remissions of land revenue, while the Sarvant Wari plundered the passing ships in order to increase the general supply. (*b*)

No change took place in the general principles of native relief during the latter half of this century. During the famine of 1791–92 in Gujerat, the Peshwa bought corn from the Nizam's country and distributed it free, (*c*) and in certain districts remission of the land tax was made, (*d*) and if indeed the lists of the population drawn up by the Ameers for the distribution of money were a new departure, they contributed really little more than a peculiar elaboration of an historic system.[8] As was always the case, the effectiveness of relief was dependent upon external politics, and apparently during the drought in Sholapur (1794) the war between the Peshwa and the Nizam prevented any steps towards mitigating the distress from being taken. (*e*)

The nineteenth century opened with a series of local calamities which war and the divided state of India helped not a little to intensify. (*f*) Their real historical importance lies in the new methods of alleviation adopted. Thus in 1803, in addition

(*a*) Dalyell, *Mem.*, p. 17.
(*b*) Eth., *Report*, p. 122.
(*c*) *Ibid.*, p. 87.
(*d*) *Ibid.*, p. 60.
(*e*) *Ibid.*, p. 87
(*f*) *Vide* Appendix A.

to the execution of the generally accepted principles of checking export and promoting import, relief works were opened and temporary hospitals erected in Bombay and such other cities as were in the hands of the British. (*a*) The works actually undertaken were mainly the construction of tanks and wells, and a road to Tanna; (*b*) and Forbes reckons that altogether the Government succeeded in saving some 100,000 lives.[9] But the British territory in West India was at that date limited, and in the native districts only importation and remission of land revenue seem to have been thought necessary, although it is reported that the Hindus not only ate their children, but even their sacred oxen. (*c*) The Peshwa of Poona was joined on this occasion by the East India Company in the remission of revenue, and indeed that Corporation seems to have grasped more fully about this time the real principles of the native policy of land taxation. For in the following year, in addition to this renunciation, large grants of tuccavee were made to the cultivators. (*d*)

In the ceded districts of Oudh an exorbitant land revenue demand[10] deprived the people, already financially exhausted by the tyranny of the Nawab-vizier's rule, of all power of resistance. There is no evidence to show that relief works were undertaken; but liberal grants of tuccavee were made for the promotion of irrigation, and a bounty was placed on importation. (*e*) In Madras, in the following year,

(*a*) Campbell's *Report*, para. 43. (*b*) Eth., *Report*, p. 116.
(*c*) *Ibid.*, p. 99. (*d*) Dutt, *Famine in India*, p. 4.
(*e*) Girdlestone, *Report*, pp. 11–24.

more enterprise was shown, both in respect to public works, upon which some 2000 persons were employed, and to the actual feeding of the people, which the Government undertook by means of offering grain at a fixed purchase price and reselling at a loss. (*a*)

But for all that, no general principles of relief had been formulated. Each famine was an isolated, unexpected phenomenon with which the Government dealt hesitatingly and uncertainly, groping in the dark for some principle which they sought in vain. Thus in 1807 they disputed as to the wisdom of importing grain until the cattle were dead and their means of transport gone ; (*b*) and when finally they guaranteed price, and teams were organised and trade began, they found that by the time the grain arrived the famine was over, and some 23,000 garce of rice were left on their hands.[11] They failed to check the mortality,[12] and, as Munro pointed out, they managed "to distress the ryots as much in the second year by want of demand for their produce, as in the first by its failure." (*c*)

Perhaps it was owing to this disaster that free trade principles were adopted in North India in 1812, and in Bombay twelve years later. But there was no general consensus of opinion. A bounty was imposed again in Madras in 1823 and 1832. In this latter year that bounty, which was granted too late,[13] and doles of food which were wholly

(*a*) Dalyell, *Mem.*, pp. 12–7.
(*b*) Dutt, *Famine in India*, p. 4.
(*c*) *Vide* Munro's Minute, Jan. 23, 1824. Quoted Sir Bartle Frere, note, p. 47.

inadequate, constituted the sum total of the Government's endeavours. (*a*) The severity of the calamity was not recognised until too late. (*b*) The Government was unprepared, and the cultivators, who were rack-rented and harassed by an uncertain assessment of the land revenue, died in thousands. (*c*)

As the British arms and diplomacy met with growing success, their responsibilities correspondingly increased. Whereas in 1783 the upper reaches of the Ganges and Jumna Rivers flowed through the dominions of the Nawabviziers of Oudh and the Mahratta Confederacy, by 1837, owing to the policy of the Marquis of Wellesley, the whole of that territory was directly, or indirectly, under British control. When famine broke out in that year, therefore, the difficulty of divided administration, which had paralysed relief on former occasions, was no longer extant; but the weight of the burden upon the Company's finances was more than doubled. It acknowledged its responsibilities, however, more openly. Some form of relief was promised for the able-bodied. But they, in their turn, must aid the sick and helpless according to the custom of the land. (*d*) Already an attempt had been made to open up the country on European lines. The existing works were continued and a few minor ones instituted. But the control of this work was left, not to expert engineers, (*e*) but to the

(*a*) Dalyell, *Mem.*, p 37.
(*b*) 1880 Comm., pt. i. p. 12, para. 46.
(*c*) Sir Bartle Frere, pp. 62–3.
(*d*) 1880 Comm., pt. i. para. 47.
(*e*) *Ibid.*, pt. iii. p. 23; B. Smith's *Report*, para. 58.

local civil officers; the Company's general administration was incompetent, and, as a later commission comments, its value probably nil. (*a*) In addition to this, although under the protest that it was given as charity and could not be demanded as a right, direct relief, to a limited extent, was given to those unable to work.[14] According to the general reports of the time its success was scarcely greater than that of the works. "The relief society," says a contemporary journal, "feeds about 1500 daily; but then, owing to the villainy of those who have to serve out the food, the flour is so adulterated with lime and sand that heaps upon heaps have died from eating it." (*b*) Indeed, the whole social structure became a chaotic ruin. Internal trade was cumbered with burdensome duties, the cultivators fled because the landlords endeavoured to collect rents for the payments of taxes, the intended remission of which the Government neglected to announce; the applications for work at Bilhour exceeded the work to be done;[15] and finally riots broke out and the military had to be called in to assist. (*c*) The Commission of 1880 estimated the mortality conservatively at 800,000; but such estimates are of questionable value. It is more enlightening to read that "the river, owing to the sluggishness of the stream, became studded with dead bodies." (*d*) As Girdlestone's report says, "The famine had got the upper hand. and with all

(*a*) 1880 Comm., pt. iii. p. 23.
(*b*) *The Englishman*, March 24, 1857.
(*c*) B. Smith, *Report*, pt. ii. para. 57.
(*d*) *The Englishman*, *op. cit.*

its energy and its expenditure, what Government did was small in comparison with what it left undone. (*a*)

The last improvement which the Company made in the administration of relief before its final abolition in 1858 was during the famine in Bellary seventeen years later, when it handed over the general management of the road building undertaken as relief works to an expert engineer. (*b*)

It cannot be said that in the course of its curious career the Company showed marked aptitude to deal with these calamities. But through its own failure it taught the Government, which succeeded it, some lessons of value, and at least in the later years of its existence confessed some obligations to the subjects over which it ruled as well as to the shareholders by whom it was controlled.

As has been seen, its policy was uncertain and tentative. After the famine of 1770 Lord Cornwallis had grain stored from the surplus of abundant years. (*c*) But there is no evidence to show that his successors maintained his granaries. Public works were often, but not always, undertaken, and little or no attempt was made towards preparatory organisation. The nearest approach towards efficient management was probably in 1824 in Bombay, when a committee of tanks and wells was appointed. (*d*) But there were no permanent famine officials, there were no codes, there were no regular reports on crops.

But the competency of the other Powers in India

(*a*) Girdlestone, *Report*, p. 58. (*b*) G., p. 63.
(*c*) Dalyell, *Mem.*, p. 4. (*d*) Eth., *Report*, p. 96.

was in no way superior to that of the East India Company, though a change in their methods of relief is indeed perceptible. In 1803 the Peshwa, after long refusing to take any steps, finally made arrangements for the importation of grain. (*a*) But in the subsequent famines the system of relief works appears to have been increasingly adopted. The year 1812 marks the point of transition. For though in some districts nothing was done, and in Mandavee food was distributed gratis and indiscriminately in the old way, Jemadar Futteh Mahomed with better judgment employed the starving population, whom he paid for their labour in kind, on the construction of a tank at Desulpur; (*b*) the Dewan of Pahlunpoor instituted works of a similar nature, and opened a state shop at which grain might be obtained at a low price; and a like policy was adopted in that year in Kathiawar, and in Khandesh in 1838. (*c*) It is, however, impossible to generalise. With the exceptions of those of 1803-4 and 1812, the famines of the first half of the nineteenth century were comparatively restricted in area. It was a time of political unrest and transition, and all attempts at mitigation were necessarily dependent upon the characters of the various rulers, and upon the exigencies of the moment.

(*a*) Eth., *Report*, p. 90. (*b*) *Ibid.*, pp. 27, 43.
(*c*) *Ibid.*, pp. 33, 36, 80.

CHAPTER III

Famines from the Abolition of the East India Company to the Present Day

It would be too great a task for the narrow limits of this book to give a full or comprehensive account of all the famines in the latter half of the nineteenth century. In every case the natural phenomena differed widely, and, more important still, the method of alleviation grew from a rough system of temporarily and hurriedly organised employment to an infinitely elaborate and detailed permanent scheme. Many of the details must unavoidably be ignored. In the succeeding chapter will be discussed some of those general principles which underlie the treatment of all famines, and also the more important efforts which have been made to prevent their occurrence, or lessen their intensity. All that can be attempted here is to sketch in bold outline the development of the main features of that system of immediate relief which finds its ultimate expression in the revised famine codes of the present day.

In 1868 was published a supplement to the *Gazette of India*, containing a summary of the measures authorised by the Government for the

relief of the starving in time of drought. It would have been convenient to adopt this memorandum as the structural basis upon which the subsequent organisation of famine relief was laid, and to trace the growth of method from this point. But it was itself little more than the codification of the systems adopted and recommended in the two great preceding famines of 1860 and 1866, and, though clearness may be thus sacrificed to historical accuracy, though the foundations may be laid in less firm soil, still the balance of the whole structure will be more perfect if the former of these famines is taken as the basic rock.

In local extent and intensity this famine bore close resemblance to that of 1837. The actual population affected in the former year was, it is true, but nine as compared with the nineteen millions of 1860. But in both cases only five millions were seriously stricken. In the latter event the North-West Provinces had been exhausted by the Mutiny, and given little chance to recuperate owing to the deficiency of the crops in 1858 and 1859. But, on the other hand, irrigation had progressed rapidly in the last twenty years, and the East and West Jumna canals alone protected some nine hundred thousand more acres than in 1837.[1] Summarising the general nature of the two calamities, Baird Smith reports that the general conclusion regarding the two famine periods was, "that as in all the material conditions by which intensity of suffering is decided, 1860–61 was fully equal to 1837–38." Yet only a few lines later he is able to continue, "Neither will revenue

have to be abandoned now to an extent at all comparable with what was needful then; nor has society become disorganised; nor have the people died in any such terrible proportions; nor will the influences of the suffering . . . continue so long." (*a*)

An inquiry into the system of relief on this occasion will afford an explanation of these differences in the resulting effects, though it is noticeable that the same writer alleges the primary cause of diminished fatality to have been "the vast mass of readily convertible and easily transferable agricultural property," resulting from "the limitation for long terms of the Government demand on land." (*b*) However this may be, and the question is too large a one to be discussed here, a cause of undoubtedly no less importance was the greatly improved system of relief organisation. Theoretically the same principle as in 1837 was enunciated, that the Government would supply work and leave to the public the purely eleemosynary duties. (*c*) But in practice almost the whole work fell upon their hands.

To a large extent modern conditions prevailed in the North-West Provinces at this time—a fact to which the difference in the system of relief from that of preceding history on the one hand, or of the famine six years later in Orissa on the other, must primarily be attributed. As Baird Smith expresses it, "our famines are rather famines of

(*a*) B. Smith, *Report*, pt. ii. para. 59.
(*b*) *Ibid.*, pt. i. para. 60.
(*c*) 1880 Comm., pt. i. para. 49.

work than of food." (*a*) That is the keynote of almost all subsequent history. The means of communication were good, the East India Railway alone importing one-third of the necessary grain. (*b*) Free trade principles were announced and strictly adhered to, and, if the consequent speculation in Calcutta was sometimes erratic, at least the corn merchants were competent to supply the needs of the stricken district. The problem was now one of distribution, not of supply. To the Government it meant how to obtain the greatest possible return for their money, with the least possible loss of life, and involved two considerations, the remunerativeness of the work undertaken, and the enforcement of work from all those physically capable. In 1860 the problem and the responsibility were fully realised.

The population was roughly divided into three classes—those capable of work in the large public undertakings; those who were proper objects of charity, but from whom, for moral rather than economic reasons, some work was demanded in the poorhouses in which they were fed; and lastly, those who, on account of their caste or decrepitude, were unable to leave their homes. The first of these classes was organised in gangs of some 500 each, housed in temporary sheds, and employed upon canals or roads. The second, into the genuineness of whose claims to charity rigorous inquiry was made, was divided into groups according to their ability to perform the light tasks of the poorhouse system. To the third direct assistance

(*a*) B. Smith, *Report*, pt. i. para. 25. (*b*) *Ibid.*, pt. ii. para. 172.

in their homes was given by agents under the supervisions of the Deputy Collectors and Inspectors. (*a*) Such was the main foundation of that organisation of famine relief which, adopted in 1860, has been modified in a hundred ways in accordance with the demands of later experience, but which, nevertheless, has never totally disappeared beneath the weight of subsequent structure.

The various minor questions, such as the relief of the Parda-nishin women, the provision for orphan children, the extent of emigration, will be discussed later. One point alone remains to be noted, namely, the fact that owing to irrigation the districts of greater and less complete failure of crops were intermingled, so that the people were able to migrate from the one to the other, and the burden of relief was thus lightened by the removal of some 160,000 of the population. (*b*)

The famine of 1860 is historically of considerably greater importance than that in Orissa six years later. The latter has attracted more attention because of the greater suffering of the people and the comparative failure of the Government's measures. But for that very reason its story is of less value. It belongs rather to the famines of the first than to those of the second half of the century. Orissa was isolated, without means of communication, and without irrigation. The same system of relief as that adopted in the North-West Provinces was impossible ; and what there is to be learnt from

(*a*) Girdlestone, *Report*, pp. 71–9 ; B. Smith, *Report*, pt. i. para. 22.

(*b*) B. Smith, *Report*, pt. ii. para. 10.

that actually adopted is to be learnt from its failure.

The failure of relief, however, is of real importance, for it led to an inquiry presided over by Sir George Campbell, and a report on the result of his work, a model for all subsequent Commissions, and the basis of all subsequent codes.

The isolation of Orissa, however, was relative and not absolute. Cramped as it was between the Eastern Ghats and the sea, with short rapid streams liable to dry up at certain periods of the year, trade was difficult, but not impossible. It was limited in time, but not in extent. In fact, Orissa presented the peculiar anomaly of a district subject to the dangers of modern enterprise, but with none of its accompanying benefits. The export of grain in 1864 and 1865 had been excessive, but import, owing partly to the dilatoriness of the Government, partly to the lack of enterprise among traders, and not a little also to the increased demand for grain by the new cotton growers in Bombay and the North-West Provinces, proved completely inadequate in the early months of 1866. With the decay of the village system the irrigation works had fallen into disrepair, and the almost uninterrupted succession of floods during the fifteen years which preceded the failure of the September rains in 1865 (*a*) had diminished the resisting power of the people. But, for all that, the real cause of the extent of the suffering was the series of mistakes committed by the Government. Importation was almost immediately proposed, but, despite repeated appeals

(*a*) *H.O.*, vol. i. p. 64

from starving districts, the Governor-General refused his assent until the middle of May. Subsequently it was asserted that "every maund of rice landed from June to October saved a life, whether it was sold, given away, or stolen." (*a*) The rivers, however, were in the main unnavigable.[2] In Pooree, where the lack of grain had already created unalleviable distress, and in Cuttack floods in August prevented all communication, (*b*) and in Behar supply was left almost entirely to private enterprise (*c*). The Government, in fact, was blindly endeavouring to apply certain economic principles to conditions to which they were wholly inapplicable. But, if economy was the ultimate object, it was not achieved. The cost has been estimated at fourteen and a half million rupees, and on the result of this expenditure the Commission finally reported that it was "evident that in practice the means taken in the shape of public works to anticipate and obviate famine in Bengal and Orissa were truly insignificant." (*d*) The real fault indeed lay in a complete failure to anticipate the distress. In Behar, no work was organised until six months after death from starvation was reported; while in Orissa "it was not until September that the relief operations attained anything like efficient proportions, and to some extent reached the mass of the people." (*e*)

The famine, however, was not confined merely to Orissa and Behar, but stretched down the whole

(*a*) Orissa Report, para. 291. (*b*) *Ibid.*, para. 291.
(*c*) Cockerell, *Report*, para. 149.
(*d*) Orissa Report, para. 407. (*e*) *Ibid.*, para. 291.

eastern coast of India. Its importance in these two particular districts lay in its effect upon the Government's subsequent policy. The death of about quarter of the population in Orissa (*a*) on this occasion was the cause of the excessive expenditure of eight years later, and the waste incurred on that occasion was in its turn the origin of the more stringent policy in the North-West Provinces and of the famous "Temple ration" in Madras in 1877. In the last-mentioned Presidency in 1866 the relief afforded was scarcely less tardy than in the more northerly districts. But the ultimate mortality was not so high and the dramatic effect was comparatively slight. (*b*)

As has been mentioned above, it was in September 1868 that the Government published a memorandum on the measures to be adopted for relief in times of famine. In the same year a drought, which centred in the Native States of Rajputana and spread to a limited degree over the British territory lying to the north-west, afforded some opportunity of putting the measures recommended to a practical test. An Executive Committee was established at Calcutta, with the special objects of controlling the import and sale of grain and organising the direct relief afforded to the destitute. The main structure of the relief organisation was similar to that in 1860, though there was, it is true, an extension of the use of district as contrasted with central works, (*c*) and village relief was distributed with questionable success through the agency

(*a*) Orissa Report, para. 69.

(*b*) Dalyell, *Mem.*, pp. 80–132 *passim*.

(*c*) G., p. 48.

of the headman. (*a*) But more important was the adoption of a principle, the real value of which was never fully grasped until the present century, of making large grants of tuccavee to the cultivators in order to give them immediate employment on their own farms, and to capitalise sufficiently the harvest preparations for the succeeding year. It was in Rajputana and Ajmer, however, that the distress was really intense.[3] Surrounded as they were on three sides by deserts and suffering from a complete failure of grass crops and a consequent loss of nine-tenths of their cattle, the sole means of transport, the inhabitants of Rajputana had no choice but emigration or starvation. (*b*) Two-thirds of the inhabitants of Marwar departed with their herds for the more prosperous districts lying to the south. But masses of the population flocked to the poorhouses and relief works erected by the English in districts more easily accessible. In Ajmer, a tiny British island in the midst of the native territory, the relief mechanism broke down almost immediately under the strain; and in no single district was it possible for the Government to accomplish the ideals with which they had been primarily inspired. On the one hand, the Governor-General had issued an order laying on the district officers the responsibility for all deaths which occurred, on the other, the Government had been anxious to uphold the principle that it was the public's duty to support the sick and aged. To enforce family responsibility, however, among the

(*a*) 1880 Comm., pt. iii. p. 96.
(*b*) 1880 Comm., pt. iii. p. 80 seq.

masses of starving immigrants who flocked to the relief houses was as impossible as the total prevention of death from want. The moral obligation of endeavouring to offer direct support to all who should demand it, which indeed had always been acted upon in practice, was then finally acknowledged in principle; but the hope of preventing all mortality had inevitably to be surrendered. (*a*)

When Sir Bartle Frere delivered a lecture before the Society of Arts in December 1873, he traced in general outlines the policy which past experience had shown to be the most effectual for mitigating distress. Trade, he thought, should be organised and assisted with the utmost care, works should be systematised, and every step be taken to acquire accurate information as to the crop issue. (*b*) But the report of the Orissa Famine Commission had sunk deep into the mind of the Government, and bore fruit in an absolute determination, and almost hysterical anxiety, to avoid mortality. Money was poured into the stricken districts of Bengal and Behar, corn was imported to the extent of 460,000 tons by the Government alone, and altogether some £6,500,000 (*c*) were expended upon a famine the very existence of which has been denied, (*d*) and which the Report in 1876 described as only urgent in the districts of Sarun and Tirhoot.(*e*) The Government, in fact, on this occasion was

(*a*) 1880 Comm., pt. iii. p. 93.
(*b*) Sir Bartle Frere, p. 13 seq.
(*c*) *Suppl. to Gazette of India*, Feb. 25, 1875, p. 4.
(*d*) *Vide A Black Pamphlet*, 1876.
(*e*) MacDonnell's *Report on Food Supply*, para. 44.

panic-stricken, and threw aside all thoughts of economy so long as the principle first enunciated in 1868, that no loss of life from starvation was to take place, was successfully carried out. But it is, perhaps, open to doubt whether they have not been too severely criticised. Their fault lay rather in excess than in principle. In no province of India was less known of the social and economic condition of the people. The original crop estimates were hopelessly at fault. If the 100,000 tons of rice (*a*) with which they found themselves burdened on the return of prosperity is more than sufficient to condemn their administration, it affords no real evidence against their policy as such. The desirability of import is solely dependent on the efficiency of the means of communication, and the comparative activity of trade and intensity of distress. The system they introduced was revolutionary, and like all revolutions it was no model of executive excellence. But the ideas which underlay their actions are the very ones to which subsequent success has owed the most. The principle of self-acting tests, for example, was largely abandoned in favour of individual inspection. But the idea was reduced to an absurdity. In a province where the existing information was so small that it was not even known what sorts of crops predominated,[4] the effect was disastrous, and over seven thousand officers were employed only to be deceived. (*b*) It was in fact too elevated an ambition to attempt to supply relieving officers at a moment's notice

(*a*) Acc. and Papers, 1875, liv. p. 4, para. 3.
(*b*) 1880 Comm., pt. ii. p. 116.

for a population of seventeen millions. But with the general progress of administrative efficiency it is exactly this principle which has become more and more widely adopted. The enormous system of administrative control, entailing the division of the whole Presidency into a complex system of relief districts and circles and village groups, which this principle of personal touch with the people entailed, was too overwhelming a task to be successfully and economically carried out at the time. But it is a system now incorporated in every famine code. Moreover, the large poorhouses, which in the Orissa famine led to the "utmost demoralisation,"(*a*) were abandoned in favour of more hygienic institutions with not more than fifty inmates. (*b*) The one fundamental error of policy was the attempt to promote emigration to Burma. Fifty thousand pounds were granted with this object in view; (*c*) 5526 emigrants were finally dispatched at a cost of Rs.19 per head, and the Government of Bengal ultimately declared that "the experiment was most unsatisfactory as far as Burma was concerned." (*d*)

Probably the permanent effects of no other famine, so comparatively limited in area, in any way approach those of 1873–74. The ignorance of social conditions, so disastrously demonstrated on this occasion, added a new incentive towards greater administrative efficiency, and a new argument against the Permanent Land Revenue assessment. The experience, so dearly bought, was ultimately invaluable, and, as a direct result of the financial

(*a*) G., p. 147. (*b*) Acc. and Papers, 1875, liv. p. 48.
(*c*) *Ibid.*, liv. p. 9. (*d*) 1880 Comm., pt. iii. p. 143.

strain, a famine insurance scheme was initiated. To quote the words of Sir John Strachey, its originator —"It was not until 1874 . . . that it was recognised that, since famines could not be looked on as abnormal and exceptional calamities, it was essential that provision against the grave financial obligation which they involve should be made as one of the ordinary charges of the State." (*a*) The proposal was not immediately put into practice; but when in 1877 there occurred the most extensive famine which India had experienced since the predominance of British power,[5] an amount of accumulated experience in the methods of alleviating distress had already been acquired sufficient to render the ultimate goal of economy and efficiency at any rate within the bounds of possibility.

In this year drought was sufficiently severe to create famine conditions in Madras, the whole of south-east Bombay as far north as Koregaon, Mysore, and part of the Nizam's dominions, and to a less extent in the North-West Provinces and Oudh, affecting in all an area of some 200,000 square miles and a population of some thirty-six million souls. (*b*) Moreover, the summer rains in other parts of North India had been deficient, so that the possible sources of supply were restricted, and whatever the actual ability of India to feed herself on this occasion may have been, large supplies of grain were actually imported from the Persian Gulf. (*c*) Thus the calamity which the Government had to face was

(*a*) Sir John Strachey, *India*, p. 140.
(*b*) 1880 Comm., pt. i. para. 60.
(*c*) Corresp. *re* Famine in S. and W. India, 1877, pt. ii. p. 72

no mean one. There were, moreover, peculiar difficulties in the way. In so far as it is ever possible to select arbitrarily a single year in this way, it is true to say that this famine marked the actual point of transition to modern economic conditions. In Bombay and Madras alike the means of communication was adequate, but the railway companies were not sufficiently capitalised to supply rolling stock to meet the suddenly increased demand. Moreover, while the preceding years of peace and progress had improved the economic position of the cultivators in South India, the population had increased in direct ratio with prosperity, (*a*) and it is doubtful whether the Government assessment in the Deccan made possible any personal insurance against drought. (*b*)

With a better comprehension of the nature of the difficulties to be overcome, and the recollection of the disastrous extravagance of 1873–74 still fresh in their minds, the Government determined to restrict their ambitions, and defined the limits of their policy in precise terms. " The task of saving life," wrote the Secretary to the Government of India to Sir Richard Temple, " irrespective of cost, is one which it is beyond our power to undertake. The embarrassment of debt and weight of taxation consequent on the expense thereby involved would soon become more fatal than the famine itself." (*c*) In other words it was finally realised that the famine problem was a purely economic one, and involved a

(*a*) Papers *re* Partial Census in Famine Districts, p. 14.
(*b*) *Vide infra*, cp. V. ; Dutt, *Economic Hist. of India*, p. 490.
(*c*) Sir R. Temple's *Report*, pt. ii. p. 19.

simple question of insurance against risks which might be foreseen. The debt incurred in any one year must not exceed the capacity of the country to bear it. Apart from purely humane motives, it might, under given circumstances, be more profitable to incur direct loss of property and life, when the means of subsistence were deficient, than to protect the one and the other at the cost of property and life in succeeding years. The importance of a firm grasp of this principle lay not only in its effect upon immediate relief methods, but also upon the whole policy of preventive expenditure.

In practice, however, the methods adopted by the various provincial governments in the execution of this policy differed widely. In Madras, where the actual population affected was greatest, (*a*) an attempt was made at importing grain, but on the advice of the Government of India the policy was abandoned and the trade left wholly to private enterprise. The wisdom of this policy is open to doubt; for although the railways managed to carry some 4000 tons daily, and not less than 700,000 tons were imported by sea, (*b*) the retailers were either unwilling, or unable, to supply the outlying districts, and the price proving prohibitive to large portions of the agricultural population, riots ensued. (*c*)

So much controversy has centred round the other methods of alleviation adopted by Sir Richard Temple in this Presidency that the task of unbiassed

(*a*) Namely, nearly 18 millions. Corresp. *re* Famine, *op. cit.*, pt. ii. p. 15.

(*b*) *Madras Manual of Administration*, vol. i. note pp. 298–300.

(*c*) Digby, *A Famine Campaign in S. India*, p. 7.

judgment is no light one. The attempt to provide employment for nearly four hundred thousand people by means of small decentralised works, which was made in the first months of the famine, proved as impracticable as in 1873, and even when in August it was definitely abandoned the larger works undertaken were in many cases of questionable utility. (*a*) Such mistakes as these may be well deemed naturally incidental to a time when spontaneous improvisation had to supply the lack of well-considered pre-existing plans. But that the system was in fact seriously defective in some way seems incontrovertibly proved by the facts—that despite a wage scarcely sufficient to maintain existence, the expenditure up to August 1877 amounted to 900 lakhs of rupees; (*b*) the ultimate mortality apart from the decrease in birth-rate approached four millions, and in "large districts half the population temporarily disappeared." (*c*) The numbers in receipt of relief, it is true, were enormous, varying from 1,185,488 in March and 1,102,248 in May to a maximum of 2,218,000 in September. (*d*) But, for all that, the ratio between cost and expenditure demands explanation. The two most remarkable flaws in the system were probably the so-called "Temple ration" of one pound of food a day with condiments, for those on relief works, the lack of control over local civil officers and the want of combination between them

(*a*) Corresp. *re* Famine, *op. cit.*, pt. i. p. 119.
(*b*) *Ibid.*, pt. i. p. 275.
(*c*) *Madras Manual of Administration*, vol. i. note pp. 298–300.
(*d*) Sir R. Temple's *Report*, pt. iii. p. 448.

and the public works department, to whose care the larger undertakings were allotted.

In Bombay relief was more efficiently executed and more promptly started, hampered though it was by a protracted dispute between the local and supreme government on the subject of the advisability of large relief works. The Government of India finally gave way and permitted these undertakings, which acted subsequently as a model for Madras and Mysore. The whole population was divided into four classes, in a manner very similar to that initiated in 1860. The able-bodied were employed by the Public Works Department; the less capable were left to the control of the collectors on smaller undertakings; those who were unable to travel were supplied with such employment as could be found in the immediate vicinity of their villages; and the emaciated and the sick were nursed in the public infirmaries. There was nothing essentially original in the system; but its comparative success is a tribute to the methods already approved. Indeed, surprising as it may seem at first sight, in view of the fatality of former calamities, it is nevertheless true that every departure made in 1878 from the officially recommended system proved disastrous in its effects. In the North-West Provinces all employment was left to the control of the Public Works Department and no village relief was given, with the result that in spite of the abundant winter crops and the restricted area affected, (*a*) [7] in nine months the mortality amounted

(*a*) Namely, mainly in the Shahjahanpur, Meerut, and Delhi districts.

to over a million ; in Mysore no change of any sort was made in the Public Works labour organisation, and, largely in consequence of this, the smaller relief works completely broke down ; (*a*) in Madras Sir R. Temple attempted, and failed to economise by a rate of wages inadequate to maintain proficiency. In fact the events of the year afforded a general confirmation of the wisdom of that policy which first found written expression in the memorandum in 1868, to which the relief authorities had added certain principles of material importance, but which no administration had, up to then, successfully carried out in practice.

If the historical importance of the famine of 1873 lies in the new proposals for immediate relief then promulgated, that of 1878 depends rather upon the impulse which it gave towards more extensive protective measures, and a greater elaboration of preparatory organisation.

The insurance scheme, of which mention has already been made, was then first incorporated in the financial system, and a Commission presided over by Sir Richard Strachey, after a careful investigation of the whole economic problem, submitted a series of recommendations, (*b*) which in 1883 were embodied in a provisional famine code. The spirit of these recommendations constitutes a general confirmation of the measures attempted with so little success in 1873. Special emphasis was laid upon the desirability of village relief in preference to poorhouses, which were always repellent to

(*a*) 1880 Comm., pt. i. para. 63.
(*b*) *Ibid.*, pt. i. para. 112.

the people, and which in the North-West Provinces it had been shown the people would sooner starve than enter. (*a*) Both in Madras and Bombay this decentralisation of relief had met with marked success. Care had been taken to avoid what the Commission defined as the fundamental danger of weakening the village system ; and the actual responsibility of investigating the distress in the villages, feeding those who were unable, and dispatching those who were able, to travel to the revenue officers' station, was laid upon the village headman. (*b*) The success of such a plan depended naturally upon the amount of trust which could be placed in the honesty of these native officials, and in some districts circle inspectors were appointed to superintend their work.

Though village relief was to constitute in future the basis of the system, it was not proposed by the Commission that the poorhouses should be wholly abolished, but rather that they should constitute a second line of defence for the assistance of those whom no inducements could prevent from wandering from their homes. For the management of relief works it was laid down as pre-essential that work should be offered immediately before lack of food had weakened the efficiency of the people, and that the wage offered should be sufficient, and only just sufficient, to maintain that efficiency.

The principle of freedom of trade from Government interference was confirmed, but with the

(*a*) 1880 Comm., para. 140.
(*b*) Digby, *Famine Campaign in S. India*, pp. 336 seq.

qualification that the actual supply should be carefully watched, and the means of communication improved. In addition to this the desirability of some definite system for the remission of the Land Revenue and grants of tuccavee on a ratio with the general crop failure was realised. For the control of the whole organisation and the acquisition of information and statistics a special Government department was to be created. (*a*)

It was not until 1896 that the proposals made by the Commission were put to a serious test. Amplified in the provisional code of 1883, they had been further modified by the various provincial codes of which it formed the basis, and finally revised in 1893 in light of the evidence which the droughts between 1884 and 1892 supplied. The nature of this amplification and modification will to a certain extent become evident in the narration of the events of 1896–97 and 1900. But a more particularised description must be postponed until the evolution of the various methods of famine relief and prevention is traced in greater detail.

Twenty years intervened before India again suffered from a deficiency of crops in any way parallel to that of 1877. Droughts, however, of varying intensity occurred in several districts, the historical importance of which is by no means negligible in view of the accumulated experience which the Government derived from them.

The lesson of primary importance taught by the events of these years was the ultimate economy of free grants of tuccavee and prompt offer of em-

(*a*) 1880 Comm., pt. i. para. 112.

ployment. In Ganjam in 1889 tardiness in relief, and ignorance of the conditions under which the native population lived, rendered the work of the Government of small value. Ragi was supposed to be the common food of the people, and little was done until that millet had reached 16 seers the rupee. Only too late was it discovered that not even the poorest would eat it unmixed with rice, and that, owing to the high percentage of waste in grinding, only 13 seers of food could be obtained from every 16 seers of grain purchased. (*a*) [8]

When in Bombay, on the other hand, in the following year a similar deficiency in the harvest returns occurred, by a policy of free advances to cultivators, not only was mortality in any way comparably avoided, but the relief works proved almost unnecessary on account of the richer cultivators, thus guaranteed, seizing the opportunity of a ready supply of labour to enter upon extensive improvement of their properties. (*b*) Not less marked was the effect of the promptitude shown in opening relief works in Bengal (1891–92), where, as was subsequently reported, almost the whole cost was covered by the value of the work done. (*c*)

As has been already noted, so early as 1877 means of communication had so far been improved that the difficulty of importation was comparatively slight.

By 1877 the historic conditions controlling production and distribution had been perceptibly

(*a*) 1898 Comm., p. 17.
(*b*) Bombay Famine Report, 1892, pp. 4–5.
(*c*) 1898 Comm., pt. i. pp. 28–9.

modified; by 1897 they had been revolutionised. Every class in the community had begun to feel the effect of a new balance in the economic order. But the balance had not yet been perfected, and the tendency towards equalisation and rise in food prices throughout India had not been followed in all districts by an equivalent increase in income. When, therefore, in that year there occurred one of the most extensive failures of crops of which history makes mention, although the weight of the calamity was spread more equally over the whole land, the resisting power of the people in certain localities was found to be unexpectedly debilitated. In the case of the Central Provinces, it is true, the circumstances were abnormal as the harvests of the three preceding years had been partially ruined by excessive wet; (*a*) and although the Commission considered that the condition of the landless labourers had not improved, (*b*) the success with which the drought of 1887 in the Chattisgarth division was met (*c*) proves at least that any increase in poverty must have been of essentially recent origin. In many districts, indeed, the resisting power of the people appears to have considerably increased; but the real wages of the labouring classes in Behar had sunk, (*d*) and the population in the Deccan were described as living "a hand to mouth existence." (*e*). As the report on the famine in the Madras Presidency said, the

(*a*) Report on the Famine in C.P., 1896–97, pp. 17–9.
(*b*) *Ibid.*, p. 155.
(*c*) 1898 Comm., p. 12. (*d*) *Ibid.*, p. 361.
(*e*) Report on Famine in Madras Pres., 1896–97, p. 49.

tendency was "to exchange grain for money, and money soon flies, usually for unproductive purposes." (*a*) The effect of this change in conditions was twofold. On the one hand, there was never any real deficiency in the supply of food, on the other, the number demanding relief was unprecedented. A drought which affected an area of 225,000 sq. miles and a population of 62,000,000 would, it is true, in any case have necessitated relief on an enormous scale. (*b*) But the aggregate of 2,220,000 individuals, who came under the Government's protection during the year, is a measure not so much of the failure of the crops as of the increased generosity of relief and increased level of prices. As was of course inevitable, the nature of the relief afforded in the twelve affected provinces differed widely in detail. But, summarising the events of the whole period, the Commission of 1898 concluded, that "the success actually attained in the relief of distress and the saving of human life was, if not complete, far greater than any that has been recorded in famines that are at all comparable with it in extent, severity, and duration," and that the cost was remarkable for its moderation. (*c*) It is to the existence of the permanent existing codes and to the consequent readiness to meet disaster that the success must be mainly attributed. Such failure as there was, was due in almost every case either to ignorance of social conditions resulting in miscalculation of the effects of crop failure, or to the absence of a definite scheme of works. In the

(*a*) Report on Famine in Madras Pres., 1896–97, p. 48.
(*b*) 1898 Comm., p. 196. (*c*) *Ibid.*, p. 234.

Central Provinces, where the failure was greatest, no change was at first made in the rate of wages, the public works subsequently undertaken were of small value, and in Saugor, where the death-rate was nearly doubled, it was not deemed necessary in the first months of the famine to establish any form of poorhouse for the relief of those unable to work. (*a*) A comparison of the measures adopted in this district and in the United Provinces will help to illustrate the character of the relief system of the present day. In the United Provinces the principle was generally accepted that centralisation of employment in the public works department should vary with the intensity of the famine. But in addition to this, and to the extent and freedom of gratuitous relief, a system of smaller works paid by contract with natives on the basis of the actual work performed was initiated. (*b*) Such a plan was only rendered possible by the fact that relief in the first place was offered before debilitation from starvation set in. In the Central Provinces, though indeed peculiar difficulties existed owing to the excessive wet of preceding years and the high percentage of aboriginal tribesmen, the primary cause of failure lay just in that fact that the relief in the early months was not adequate. The wage on the relief works was not sufficient to attract labour; the nature of the work was such that "the mere prospect of escape from starvation was an insufficient attraction to the labouring classes," (*c*)

(*a*) 1898 Comm., pp. 162 and 173.
(*b*) *Ibid.*, pp. 54 seq. and 119.
(*c*) Report on Famine in C.P., vol. i. p. 159.

the village dole did not fluctuate with prices, and the poorhouses when they were opened proved in consequence inadequate for the numbers who flocked to them. (*a*)

Apart from the peculiarities of different districts, however, there are certain outstanding features of the famine as a whole, on which its historical importance mainly rests. Of these indubitably the most prominent was the extension of gratuitous relief as compared with public employment. During the whole period no less than 42 per cent. were relieved in this manner, and, except in Burma and Bombay and the Punjab, the assistance was brought straight to the houses of the people. (*b*)

As the general opening up of the country progresses, the difficulty of finding remunerative forms of employment on public works becomes increasingly severe. It was estimated that the total value of the work executed was at the most not more than 40 per cent. of the expenditure, and that in many cases the work might be neglected "as of little or no utility." (*c*) A mistake, it is true, was made in the extent to which employment on road-making was offered: the people viewed it with disgust,[9] and in many cases the stones broken were never utilised and the highways begun never extended. But for all that, the real difficulty lay in the fact that the amount of work available on railway and tank construction had appreciably diminished.

Another fact, the importance of which was striking, was the inverse ratio between the mortality

(*a*) Report on Famine in C.P., App. iv. p. 11.
(*b*) 1898 Comm., pp. 207–8. (*c*) *Ibid.*, p. 232.

and relief statistics. In four districts of the Madras Presidency 20·8 per cent. of the population were in receipt of relief. Yet, in spite of the poverty of the cultivators in many localities, the mortality was only 4·1 per mille in excess of the normal. In Bombay, on the other hand, where a more rigorous policy was adopted, the percentage of population relieved did not exceed 17, while the mortality statistics rose to 15 per mille above the decennial average. In the Central Provinces where, as has been seen, the relief was least adequate, it was 22 per mille above that of 1893.[10] It is not without pertinence to add that the average wage as measured in food was 24 lb., 17 lb., 16 lb., in these three districts respectively. (*a*)

The variations from the systems suggested in the codes were too numerous to mention in detail. But in one respect there was a remarkable unanimity throughout India in the adoption of a new policy. An attempt had been made to graduate labour and wages according to the ability of the workers, and the whole population had been divided into four classes, ranging from the able-bodied and skilled to those on the margin of competence. In every district the system broke down, and in so far as speculative classification was possible at all, it was in future to be based on the nature of the work, only indirectly on the skill and physique of the labourer. (*b*)

(*a*) 1898 Comm., pt. i. pp. 179, 182, 202–3, 212; pt. ii. pp. 21, 174. Report on Famine in C.P., 1896–97, App. iii. p. 7.

(*b*) *Report on Management of Famine Relief Works*, T. Higham, 1897, pt. viii. pp. 1–2.

In view of the vast extent of the whole famine relief organisation the departures from the codes were comparatively slight, and if mortality statistics and expenditure be the final measure of success, the three quarters of a million who succumbed constitute but a small percentage of the whole population affected. Indeed, the administrative efficiency necessary for the relief of some 76,601,544 units (*a*) at a cost of Rs.32·7 per head per annum is difficult to calculate. (*b*)

The famine is of peculiar importance on account of the relatively normal conditions. Unusually extensive in area, it is true, it was. But for a generation India had been comparatively immune, and the Government and the people alike had been given time for preparation. Exactly the reverse was the case when two years later a deficiency of rain occurred which was not only unique, but actually more than double any known record. The two intervening years between these calamities were wholly insufficient to allow the people to recuperate, and as subsequent events proved, did not allow the Government time to organise new permanent schemes for relief works. Though some 45,000 square miles less than in 1897 were affected in British territory, the whole area of the drought was estimated at 475,000 square miles bearing a population of fifty-nine and a half millions. It is thus difficult, almost impossible, to compare the Government's success in their attempt to mitigate distress on the two occasions. On the former the difficulties to be met might be foreseen, on the

(*a*) 1907–8 Comm., p. 84. (*b*) 1898 Comm., p. 196.

latter the mere occurrence of the calamity was a unique meteorological phenomenon. On the former the greatest difficulty was the unwillingness of the hillsmen to come to the works, on the latter it was the unparalleled and unexpected numbers who flocked to them. There was no reserve of grain, or wealth, or strength, and the famine affected not the grain crops only, but the whole supply of fodder. The railways carried over two and a half million tons of grain to the afflicted districts; (*a*) but the problem of importing fodder at a purchasable price in many cases proved insoluble. (*b*)

The most important recommendation of policy, as distinguished from legislative regulations, made by the Commission of 1898, was that ultimate economy would be better assured by greater generosity. The most noticeable fact in the administration of the famine of 1899–1900 was the extent to which this recommendation was followed. In the Central Provinces the increase in the units relieved from 158 millions in 1896–97 to 556 millions in 1899–1900 was the greatest; (*c*) but the final total of 1,140,000,000 units was far in excess of any previous occasion.

Following the advice of the recent Commission also on another point, labour was concentrated in the main in large relief camps. The success of the system was doubtful. Insufficient as the time had been for the drawing up of new plans,

(*a*) Mem. on Railway Admin., p. 29.

(*b*) Nash, *The Great Famine*, pp. 12, 69; Papers regarding Famine, 1899, 1900, xxvii. p. 266.

(*c*) 1901 Comm., pp. 4–5.

the work, much of which consisted in road construction, was of little permanent value, while in some districts immediate difficulty was met, in the lack of tools and necessary provisions for the labourers.[11] " In no province," it was said, " were well-considered programmes of public or village works ready at the beginning of the famine." (*a*) When opportunity arose for investigating the actual value of the whole result, the opinion was expressed that " on the whole it was impossible to say that the utility of the works executed during the recent famine was great." (*b*)

In consequence of the expense and waste on these works, a certain change of opinion is noticeable on the question of the desirability of large undertakings in the final report of the Commission of 1901. But though the success of the new system of decentralisation and private enterprise during the drought of 1907 corroborates the opinion of Sir Antony MacDonnell and his collaborators, the lack of preparation in 1899 never really afforded an opportunity of putting the recommendations of the 1898 Commission to a fair trial. It was indeed this fact which was the primary cause of such inefficiency as there was. In Madras, for example, in spite of the demand for irrigation, roads were constructed, the maintenance of which in the future proved a financial impossibility, (*c*) and little attention was paid to the suggestion of the Commission that advances should be made for the repair

(*a*) 1901 Comm., p. 10.
(*b*) Report of Irrigation Comm., 1904, pt. i. p. 329.
(*c*) *Ibid.*, 1904, pt. ii. paras. 300, 305.

of wells and the permanent security of the Kharif crop. (*a*) Viewed as a whole, however, these defects in administration are but incidental, and the real lesson of the famine is its justification of the existing system.

Summarising the events of the two years, the Commission laid emphasis upon the refusal of relief in the early stages of the famine in some districts, and the fact that "taking the period as a whole the relief distributed was excessive." (*b*) The total cost of the famine, amounting to nearly ten crores of rupees, (*c*) was indeed unparalleled. But the sweeping condemnation of the whole British administration made by certain writers, based on the financial burden of this expenditure, the excess in mortality of a million during these two years, and an estimated check to the natural increase of the population of nineteen millions,[12] can scarcely bear criticism.

There was a certain lack of generosity in the Bombay Presidency; there was a heavy mortality among the aboriginal tribes in Gujarat and Khandesh, whom it was scarcely possible to assist; immigrants from native states added largely to the mortality statistics; and disease, the inevitable consequence of drought and heat, eliminated those whose power of resistance was relatively inferior. But the scenes of the tragedies of past centuries can never be reacted.

The problem of relief organisation was indeed solved before the Commission of 1901 drew up their report. The real value of that report lies in its

(*a*) 1901 Comm., p. 15. (*b*) *Ibid.*, p. 7. (*c*) *Ibid.*

clear summary of principles already enunciated, and still more in its exhaustive inquiry into the whole economic condition of India, and the suggestions it threw out for general economic reform.

In less than six years a proof of the value of that work was given. Into the nature of the change that has passed over India in the last decade it is impossible to enter here; but from the story of the drought of 1906–7 some conception of it can be gathered. Although the rains in June had been locally deficient, and those of September and December had completely failed in the provinces affected, (*a*) although the harvests had suffered in 1903 and 1904 from excessive wet and been generally deficient in 1905–6, still the increase of mortality was almost negligible, (*b*) and the calamity never bore the name of famine. The consequent rise in prices during this period had been met in some districts by an equivalent rise in the wages of labour.[13] But the real causes of the success, with which the effects of the drought were resisted, lay rather in the improved condition of the cultivators, the existing irrigation systems, and the ready and extensive grants of tuccavee.

All mechanism must change with the changing needs of the times, and on this occasion it was found that that great structure of administrative organisation which had been necessary in the past was to be superseded by a less complex system. The food supply for nine months completely failed, and

(*a*) Namely, the United Provinces, especially Agra and Oudh.

(*b*) 3·41 per mille above the 1892–1901 average. Report on Admin. of Famine Relief, 1907–8, p. 131.

a population of nearly fifty million was affected. (*a*) But although higher wages than was customary were paid, the numbers on relief works over the whole period were abnormally small. More remunerative work was to be found in the less stricken districts and the agricultural labourer was employed elsewhere. For, owing to the moral and economic development of the "cultivator" classes and the insight of the Government, a new system, at once more economical and more congenial to the people, was found possible. Loans were made at varying rates of interest to the landowners, who were ready to seize the opportunity for the extension of the irrigation and drainage of their properties; the unusual expense of sowing the spring crops was guaranteed by the Government; (*b*) and thus the duration of the distress was curtailed, and the disorganisation of the normal conditions reduced to a minimum. Moreover, that tendency towards decentralisation, the almost unbroken history of which can be traced from 1873, found its final expression, and the numbers relieved in villages exceeded those of 1896–97 by over eleven million units. (*c*)

The history of famine relief during this period is one of action and reaction, but all the minor oscillations of opinion have scarcely checked the general movement, which has been towards the ultimate ideal of co-operation in work and generosity in charity.

The relief afforded in native states during this period was almost throughout in imitation of the

(*a*) Report on Admin. of Famine Relief, 1907–8, p. 4.
(*b*) *Ibid.*, pp. 21, 72. (*c*) *Ibid.*, 1907–8, p. 84.

English systems. Its history is, in fact, a mere reflection of that which has been related, blurred and bedimmed on occasions by the lack of energy of native potentates, but obtaining an ever increasing precision as the century advanced.

In one respect alone has there been a marked difference. Although special mention was made in reports of the extent to which the Zamindars and richer ryots offered personal assistance in Madras in 1865–66, (*a*) and such generosity was even more marked in later years, still a subject people can never be expected to show an eager readiness to assist a foreign Government in the execution of the most onerous of its duties; nor can such assistance be enforced as an obligation. Thus it is that in Native States the co-operation of the richer members of the community, sometimes obligatory, sometimes voluntary, has played a considerably more important rôle. But even in these states, such private enterprise is accessory to the central organisation.

In 1865–66 relief centres were established, and cooked food distributed in a manner closely similar to that in the North-West Provinces a few years previously. (*b*) In 1868–70, as has been seen, the death of the cattle and dearth of corn in Rajputana rendered all hopes of mitigating distress impossible. But the success of village relief in Rampur, carried out through the agency of the headmen, (*c*) gave a

(*a*) *Report on Madras Famine*, Dalyell, p. 112; Eth., *Report*, p. 109.

(*b*) Madras Man. of Admin., vol. ii. p. 299.

(*c*) G., p. 165; 1881 Comm., pt. i. p. 196.

hint to the British Government, upon which it was not slow to act; and the striking energy of the younger native princes throughout the whole period was the subject of special note. (*a*) Such energy, however, was not always shown, and in spite of the existence of some twelve thousand breached tanks in Mysore which gave the native government of that province an opportunity probably unique in history for the establishment of relief works, (*b*) the famine of 1877 was mismanaged, no public works were undertaken till too late, and subsequently the reporting Commission felt obliged to draw up a special code for that province. Although there have been local exceptions, viewed as a whole the history of relief in Native States from that date to the present day has been little more than the story of the success or failure of the application of such codes. In Mysore in 1896–97 the success was such that not only was perfect competence to support its own population shown, but assistance was also rendered to the adjoining British territories; (*c*) and so efficient was the administration in Bundelkhand and Gwalior in 1900 "that it might well form a model for us."(*d*) But this was not always the case. There is an inevitable element of doubt and danger in the amount of reliance that can be placed on particular individuals. The British Agent was often compelled

(*a*) Col. Brookes, Dec. 9, 1870; 1881 Comm., pt. i. p. 84.

(*b*) Digby, *Famine Campaign in S. India*, p. 493, quoting Col. Sankey.

(*c*) Report on Famine Admin. in Madras Pres., 1896–97, p. 55.

(*d*) Report of Irrigation Comm., 1904, pt. ii. para. 732.

to bring pressure to bear; (*a*) and in some cases, such as those of Banganapalle and Hyderabad in 1896, nothing worthy of the name of relief was undertaken, and the kitchens in the neighbouring British districts were flooded with immigrants. (*b*)

(*a*) Papers on Famine, 1899–1900, vol. ii., "Native States," pp. 166–9.

(*b*) Report on Famine Admin. in Madras Pres., *op. cit.*

CHAPTER IV

Relief Organisation

Viewed from the standpoint of the economist, drought constitutes a reduction in the gross revenue ultimately derivable from the natural agents of production. That reduction no system of relief can hope to affect. Protective works may restrict the area, or partially mitigate the effects of deficient rainfall, but the actual work of relief is confined in its objects to preventing a concomitant decrease in the supply of labour and cattle, and, to a less extent, to spreading the economic burden over a greater length of time and width of space. Only to a limited degree, however, does this latter object of insurance come within the ideals of relief. It constitutes a modifying factor, restricting the amount of immediately expendable wealth, and influencing the nature of the work undertaken. In so far as the policy of the British Government has changed, or fluctuated since 1858, that change has been largely dependent upon the amount of importance laid upon it.

From the sketch which has been given of the history of the famines of the past it will have been observed that certain methods of relief have failed in their object and that others are no longer applic-

able to the changed conditions of the present day.

A study of these failures, and these anachronisms, and an examination of some of the difficulties which efficient relief must face, may perhaps throw light upon the principles underlying the present system.

The time of wholesale mortality from lack of food has passed. The problem is now economic and moral, not geographical. It is concerned fundamentally with the means of establishing at any given moment some system of provisional employment, which shall be capable of providing work for an uncertain and fluctuating, but always considerable, percentage of the population, and, with wages sufficiently high for efficiency, shall at the same time possess a permanent value as great as possible. In Western countries public works as a method of poor relief have been almost universally discredited on the plea not only of their demoralising effects, but also of the impossibility of supplying remunerative employment at those times of year when destitution is greatest. But in India, where no alternative exists, the climatic variations are infinitely greater, the available capital is infinitely less, and the abruptness with which the normal demand for labour ceases, and then revives, renders the difficulty of assuring results of permanent utility almost inestimable. A famine may be caused by a rainfall not actually deficient in depth, but a fortnight too early or too late, or a harvest which promised sufficiency may be ruined by minor calamities such as plagues of locusts or rats,[1] or disease. Moreover, as is still more frequently

the case, such plagues as these, or summer floods, may prolong an existing period of distress and upset the whole basis of calculation upon which relief was established.

It is not the object of this chapter to estimate the measure of success or criticise the failure of the relief organisation of the past, but rather to trace in outline the growth of that system as it at present exists. Little is to be learnt from the methods adopted previously to 1858, not merely because of the relative inadequacy of the more ancient systems, but still more because the economic conditions were then such that little common ground for comparison exists. Previous to the arrival of Europeans in India the policy of the native rulers was rather prevention than cure; subsequent to 1858 it has been mainly in imitation of the English. It is only during the last half-century that India has undergone her economic transformation, and the evolution of relief organisation could not exceed in rapidity that change upon which it was dependent, nor the growth of those ideals by which relief was inspired. Mention has already been made of how in 1868 the object, subsequently modified, of total prevention of death from starvation was asserted. The system of liberal but unmethodical charity, which had been characteristic of the famines of the first half of the century, had indeed been scarcely more unsuccessful than that of laying the obligation of assisting the sick and infirm upon the able-bodied, and organising charity under the local agencies which had been adopted in 1860 and 1866. But the acme of governmental benevolence was

reached when in 1897 the whole of the private donations, which so early as 1877 had amounted to over £678,512, were devoted to extra comforts for the poor, and special assistance after the drought had passed.[2]

Perhaps the most important effects which the economic changes in India have had upon the general policy of relief, as distinguished from details of administration, were the surrender of importation to private enterprise and the prevention of "wandering" or emigration.

Emigration in ancient times was the natural impulse of the people, and until subsequently to 1880 had been looked upon favourably by the Government. In 1868 it was deemed advisable to offer such assistance as was possible, and, as has been mentioned, in 1873 a considerable grant was made for that purpose. Its effectiveness as a means of relieving the pressure of the population on a diminished supply of the means of subsistence depends ultimately upon the extent of the distress and the rapidity and certainty with which the people move. In some cases, as in that of the drought in Rajputana in 1868, no alternative is available; in others, as eight years earlier, the proximity of irrigated districts may ensure success; but, as the Commission of 1880 pointed out, in no case has artificial stimulation met with anything but tragic failure, (*a*) and often the natural inclination to migrate has led to nothing but objectless wandering from one stricken district to another. The whole spirit of the modern system has been

(*a*) 1880 Comm., pt. ii. p. 181.

towards maintaining so far as possible the existing homes of the people.[3] But the policy is necessarily negative rather than positive. The desirability of migration at the present day must depend on the existence of a real demand for labour elsewhere.

Importation of grain was an obviously necessary complement of all systems of relief at that time when facilities for private enterprise were deficient. The undesirability of weakening the security of trade by interference, when such facilities did exist, was no less obvious. But, unhappily for that country, the Government of India during the middle of the nineteenth century suffered from an excessive faith in the principles of the classical economists, which, influencing their policy in reference to internal free trade, had for its result that the importation of corn to famine-stricken districts depended, not so much on the necessities of the particular case as upon the respect paid to those principles at the moment. The example, which the East India Company had set, was indeed not a happy one. The prohibitions on export made on numerous occasions, (*a*) had either proved unnecessary on account of the rise in prices, or had prevented the export of one grain paying for the import of another. Their attempts to restrict sale prices, (*b*) a confession of the inadequacy of supply, had acted as a check to enterprise, and their bounties and guarantee of purchase prices (*c*) had in some

(*a*) *E.g.* 1770, 1792, 1803, 1807, 1824.

(*b*) *E.g.* 1729, 1785, 1803.

(*c*) *E.g.* 1803, 1823, 1833, 1807, Guarantee Price, *vide* Appendix A.

instances left them with superfluous stocks on their hands, in others proved an insufficient stimulus to trade. It was, in fact, exactly that difficulty of gauging the total demand which was the inspiring force of the Government's faith in free trade principles in later years. But the necessity of importation on certain occasions was shown clearly in 1866, and definitely accepted in 1873. The excess on the latter occasion no more proved the undesirability of the system than did the difficulties met in 1868. (*a*) Non-interference in 1812 had raised prices to six times their normal level, and had prevented the rapid distribution of food to the outlying districts in Madras in 1877. Indeed, until the railways in India had extended to such a degree as to make private enterprise really adequate, it can scarcely be said that the Government formed a definite policy. A tendency is, however, perceptible in favour of direct control rather than bounties or guarantee prices, and the necessity of that control under particular circumstances, as the events of 1890 and 1907 proved, will never be absolutely lost.[4] But it is not too much to say that emigration and importation on a large scale belong to the mitigative methods of the past.

The real lesson taught by the history of famine trade is the extreme difficulty of foretelling the occurrence or duration of droughts. The rise in corn prices is no definite criterion, for in some cases the people have no money with which to buy, and in others there is no corn which money can

(*a*) In the case of Rajputana owing to the mortality among cattle.

measure. To these facts, to no small extent, have been due the modifications which have taken place in relief organisation. The history of this organisation presents a remarkable paradoxical development towards simultaneous centralisation and decentralisation.

The evolution of these two principles is somewhat obscured by the variety of methods of employment; and the impossibility of any classification of works, or wage systems, applicable to the whole period, prohibits perfect clarity of expression. Moreover, this evolution, superficially paradoxical in its nature, has not been uninterrupted in its progress.

The desirability of the concentration of labour upon large undertakings was first upheld by Baird Smith during the famine of 1860. But from that date until some weeks after the outbreak of distress in Madras in 1877 a general drift of opinion in the opposite direction is noticeable. But distinction must be made between the relief offered to the able-bodied and to the sick and infirm. It is the classification of the population which forms the foundation of the existing system. Thus, while opinion may lean towards centralisation of employment, it may at the same moment maintain the desirability of decentralising gratuitous relief. This is indeed, within certain limits, exactly what has taken place. In 1860 there were two centres—the poorhouse and the works. Since 1873 the former has gradually disappeared.

Under native rule, as has been already related, such employment as was given consisted either in

the increase of the numbers of the army, (*a*) or in vast works on tanks or canals. But it was not until after the termination of the East India Company in 1858 that anything at all comparable in extent was undertaken by the English. The reason for the concentration of labour in large gangs in 1860 was the increased facility of supervision. But in both the succeeding famines other considerations, such as the fear of epidemic and the desirability of increased differentiation, proved of greater weight. There is, it is true, theoretically no necessary interdependence between the size of the gang and the size of the undertaking. The problem must indeed be considered relatively. But the systems adopted on these two occasions of light labour gangs and subsidised contracts, (*b*) both resulted in greater decentralisation. Similarly in 1873 a certain number were drawn from the public works by the Government's policy of giving privileges to private individuals undertaking works of utility. But in this year the Government first gave utterance to a policy to which it adhered in principle until the close of the century. The institution of small works in Madras during the first weeks of 1877 was rather the expression of a personal opinion on the part of Sir Richard Temple than the execution of an authorised policy, and although the Government proved its own indecision by opposing the opening of larger works in Bombay on the same occasion, the ultimate success of centralisation brought conviction; and for the immediate future

(*a*) Cf. 1423 and 1596, *vide* Appendix A.
(*b*) G., pp. 85–91, 103–5, *passim*.

the policy of promptly concentrating labour under the supervision of the Public Works Department, and then gradually drifting gangs off to works nearer their homes, remained unchanged. There were, it is true, local deviations from this principle, as in Bengal in 1896–97; but the Commission of 1898 viewed their action with dubious approval, (*a*) strongly advocated the extension of centralisation and the reservation of smaller works until the summer, or to meet the danger of epidemic diseases.[5] Without directly dissenting from the opinion of their predecessors, the Commission of three years later, while reserving final judgment until the utility of the work performed during the late famine was tested, laid stress on the advisability of a further extension of village operations. The evidence submitted in 1904 (*b*) was more than sufficient to justify them in their attitude.

The drought of 1907–8 was perhaps scarcely intense enough to test fully this change in policy. But it did at least demonstrate the extent to which that alternative to public works could be beneficially adopted under favourable circumstances. It is round the practicability of village relief and village industry that the problem really centres.

There exists a certain obvious *a priori* advantage in affecting the ordinary social and economic routine in as small a degree as possible. Until 1873, however, the importance of this desideratum was deemed slight in comparison with the danger of the people battening upon governmental paternalism. The

(*a*) 1898 Comm., pt. i. p. 135.
(*b*) Report of Irrigation Comm., 1904.

success of village decentralisation is the reflection of moral and administrative progress.

Previously to the eighteenth century, when works were not instituted, relief was direct and, with some noticeable exceptions, (*a*) confined to one centre. Apart from the limited extent of such relief, its obvious defect was the overcrowding of the capital and the consequent outbreak of epidemics. But the poorhouses and relief centres, which formed the backbone of the system for mitigating distress among the weak in the middle of the nineteenth century, were little more than a modification of this system. They were a modification inasmuch as work was demanded in the poorhouses, and those institutions were considerable in number. But, as far as the agricultural population was concerned, it was identical in its effect of breaking up the home life.

In tracing the history of gratuitous relief it will become apparent how the drift towards decentralisation has been almost uninterrupted, until at the close of the past century its organisation was so nearly perfect, and its beneficial effects so convincingly demonstrated, that it was made possible to advocate a decentralisation of employment on similar lines.

The poorhouse system was first doomed when in 1868 the Government extended its promise of assistance to all classes of society. The attempt in the famine of that year to adhere to this plan was an anachronism. The hatred of the poorhouse has in many instances proved more strong than

(*a*) Cf. Famine, 1596, 1630, 1660, *vide* Appendix A.

the fear of death, the test of cooked food for admission was to many a religious prohibition, and in 1866 an example had been set, however limited in extent, of the possibility of outside assistance. But though an anachronism in respect to the Government's ideals, it is more doubtfully so in view of administrative efficiency. When in 1873 an attempt was made to substitute personal knowledge for self-acting tests, that knowledge was found wanting. But though the history of the present-day system may be conveniently dated from that year, its ultimate origin is to be found in the sympathy extended to the Parda-nishin women so early as 1860. The measure of success met by the efforts to assist in their own homes those who were too proud to enter the poorhouse, led on the next occurrence of drought to the extension of the principle to the weavers, and it was from these small beginnings that the village relief grew. In 1877 the undesirability of giving heavy labour to skilled industrial workmen was finally recognised, and the village inspection and relief were extended in the manner already described. But with extension of this system in the two last famines of the century, other methods of relief did not totally disappear. Kitchens were still maintained and advocated for children by the Commission of 1898. (*a*) But the old tests had broken down, and their utility was strongly criticised three years later. Ultimately the problem was a psychological one, and it was found that greater demoralisation ensued from the temporary destruction of

(*a*) 1898 Comm., pp. 286–7.

family life than from the possible pampering of the people maintained in their own homes. But, granted the desirability of this method in respect to the weak or aged, the question of its extension to other classes was merely one of practicability.

The economic advantages of maintaining the ordinary agricultural occupations were no less obvious than those of shortening the duration of the famine by ensuring early harvests, and in 1896 it was definitely proved that the public works were the most expensive of all forms of assistance. But the practicability of this plan depended not only on the reliance which could be placed in the village headman, but also upon the system of wage payments.

The difficulty of fixing wages at such a rate as to maintain efficiency and obviate over-indulgence has proved the greatest of all those in connection with famine relief. In respect to nothing has policy varied so much. It is almost impossible to unravel the thread from the tangle. There was a tendency up to 1877 to limit the amount paid after the responsibility for maintaining dependants was taken over by the Government. With the improvement of administration and supervision there has been a parallel tendency, the necessary complement, towards differentiation and classification. Classification, however, has proved the fundamental difficulty.

The attempt made in 1860 so to group labour as to allot the lighter tasks to the physically weaker was developed in the following famine by the formation of "light labour gangs" employed nearer their own homes. From that date up to 1900

the task was essayed of classifying on the basis of hypothetical efficiency, and graduating wages according to the value accruing from the task corresponding to any particular group, the assumption being partly that the food should bear a ratio to the energy expended, and partly that while obviating the danger of laziness the more competent would be able personally to support their dependants. This principle, however, was necessarily modified and restricted by the obligation to offer to all a wage adequate to their essential needs. But, as has been seen in the foregoing chapter, it proved unsuccessful. In the first place, sufficient stimulus to work was not given within the various groups, and while fining was proved to be unjust, the minimum wage was looked upon as a form of gratuity.[6] In the second, the system of classification proved in practice to be meaningless.[7] It was realised in 1898 that a modified system of payments by results would hold out a greater incentive to work, and that a classification on the basis of the nature of the task would render this more possible than one on the basis of presumable efficiency.

Two facts have made the existing system possible—the perfection of supervision and the immediate offer of employment before emaciation sets in. Both indeed are essential; for the system entailing payment, partly on the amount of work done, and thus resulting in the creation of groups as small as possible, and partly on the basis of classification, is in fact a combination of task and piece wages. Indeed, with the abolition of the minimum wage, the perfection of supervision and the relatively

greater efficiency of the worker, the system must in the future, and has largely in the past, resolved itself into one of payment on results.

As soon as this result was achieved or nearly achieved, as soon as the increased cost of closer supervision was remunerated by the greater efficiency of the worker, then so soon did village works become practicable.

There is, however, a natural limit to the amount of available work to be done in villages, which is more rapidly reached than in the case of the larger undertakings. So long ago as 1898 it was reported that that limit had almost been reached, (*a*) and although subsequent experience throws doubt upon the assertion, its justification is a mere matter of time. But as the larger village works available have decreased in number, new methods of individual employment have been found. During the famine of 1899–1900 the aged and infirm were employed in preparing the prickly pear as fodder for cattle, while many able-bodied were hired by the more wealthy cultivators for property improvements. The solution of the difficulty lies in reality in loans to cultivators and liberal grants of tuccavee. This system, which formed the backbone of the relief organisation of Muhammad Tughlak in 1345, was rather accepted as a principle than adopted as a means of relief until 1868. But it is only within the last twenty years that the grants for seed corn, or loans for improvements, have been made, not merely with a view to securing

(*a*) Cf. *Report on Famine Relief Works*, T. Higham, 1907, pt. viii. p. 13.

future harvests, but also with the immediate object of lightening the pressure of unemployment. Successfully carried out in 1884 in the Punjab, (*a*) and in the Bombay Presidency in 1890, (*b*) the plan achieved its ultimate perfection in 1907.

Little mention has been made in preceding chapters of that corollary of tuccavee, upon which, no less than upon direct loans, the power of recuperation in agriculture is dependent. The question, however, of the Land Revenue remissions is so inextricably intermingled with that of the whole economic position of India that it is difficult to discuss it here, without introducing those wider economic problems which may be advantageously postponed for fuller treatment elsewhere.

These remissions accepted as a principle of relief by native rulers reached the unprecedented sum of 70 lakhs in 1630 under the Emperor Shah Jehan. (*c*) But though there were some such remarkable exceptions as this, the general plan under native rule was to remit in so far only as it proved impossible to collect. As a rule, under the East India Company, either a similar policy was adopted or the remission was merely provisional on a promise of subsequent payment. On some occasions, it is true, as in 1858, the remissions were liberal, and the 23 lakhs surrendered on that occasion considerably exceeded the sums in 1860. The policy of greater liberality may be dated from 1873. But not until the necessity of giving immediate information as to

(*a*) 1898 Comm., p. 7.
(*b*) *Report on Bombay Famine*, 1902, T. E. Fleet, p. 5.
(*c*) Elliot, vol. vii. p. 25.

the amount to be remitted was grasped was the effect of these remissions in any way equivalent to their cost. In 1900, in accordance with the growing policy of protecting the poorer agriculturists, they were made subject to a similar abatement of their claims on the part of private creditors.

But beyond the mere question of administrative wisdom the beneficial result of such remission of taxes, or granting of loans, is essentially limited by the extent of mortality among cattle. This was so far realised in 1900 that special advances were made in May and June, at the time of Kharif sowing, for their purchase. But the problem of prevention of mortality is one which up to the present has remained unsolved in practice. As Sir Richard Temple pointed out, when the failure of fodder is relatively small the ensuing mortality among those beasts too old for work is no economic loss. (*a*) But such occasions are comparatively rare. In some cases, before the existence of railway connections, districts have been isolated and starved to death by the loss of the one means of traction; still more often have lands gone temporarily out of cultivation owing to the impossibility of ploughing. In the southern districts of the Bombay Presidency the difficulty was largely overcome by driving the herds into the hill forests. In the Madras Presidency on the same occasion some relief was afforded by preparation of the prickly pear. (*b*) But though similar arrangements were made in the two great subsequent famines, and employment was found for the villagers in cutting grass, and cattle

(*a*) *India*, p. 337. (*b*) *Ibid.*, 1877.

camps were established, the supply of fodder proved ultimately inadequate, and agriculture has suffered in consequence. How far the provisions made in the existing codes to meet the danger will be successful still remains to be proved.

These codes present the formulated expression of past administrative experience. They cover not only the relief directly afforded during the period of distress, but the whole of the standing preparations. It is impossible here to sketch adequately, even in outline, the nature of these preparations, or the peculiar features of the various provincial codes. The codes of 1883 and 1893 and the report of the Commission of 1901 constitute the three stages of their development. Of the nature of that development some description has already been given.

The permanent provisions alone vary in extent and character from the meteorological stations situate in Africa and Arabia to the purely local centres of information in reference to the prospects of the harvests and movements of the population. Reserves of establishments and tools are maintained, and in 1900 the Government accepted the recommendation that a Commissioner should be appointed for the executive control of relief measures, " whenever a reign of famine is impending." (*a*) Programmes of works are kept in preparation by the Public Works Department, and for village undertakings by the local officials.

Beyond this the whole scheme of the measures to be adopted from the first indication of distress to

(*a*) Resol. No. II., Dec. 20, 1900.

the final closing of the works is elaborated and detailed. The provincial codes as they now exist are not absolutely identical in their nature; but in Native states and in British states alike they are in the main the incorporation of those principles the history of which has just been traced.

CHAPTER V

Protective Measures and Wider Economic Problems

No review of the measures which have been adopted to mitigate the effects of drought would be complete without taking into consideration those wider economic problems, upon the correct solution of which the ultimate prosperity of India depends. The famine codes which the Government of India has drawn up for the various Presidencies presuppose a definite economic structure, and have varied as that structure has itself undergone alterations. If then the efficacy of the system of relief in the past is to be estimated, it is necessary to bear in mind the fact that the energies of the Government have not been restricted to a mere opportunist struggle with the horrors of famine when drought has already produced distress. Railways have been laid down to render relief possible; irrigation works have been constructed to render it unnecessary. Districts which were deserts have been converted into cornfields; districts which were inaccessible islands have been connected with grain markets. On what principles the one or the other of these two alternatives of protection of the people against famine or prevention of the possibility of

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drought has been adopted, and what have been the effects of those measures on the general economic position of India, it is in part the purpose of this chapter to discuss.

But before entering further upon this inquiry, it is necessary to consider the truth of the theory that famines are, in fact, not only inevitable, but beneficial. For there are certain thinkers who look upon famine as a natural check against over-population and deplore the expense which efficient relief works entail as waste of wealth upon those surplus numbers the destruction of which is demanded by ultimate expediency. The question is important, for, in a country where two-thirds of the population are engaged upon agriculture, over-population is an obvious theoretical possibility, and it might be to this, rather than to any other cause, that the weakness of the people's resisting power has been due. In Western Europe, where production is mainly industrial, the economically advantageous density is rarely exceeded, and the restrictions imposed by civilisation on the growth of population have proved sufficient in the past, and appear likely to prove more than sufficient in the future. But in India it is no mere matter of animal instinct, but of prehistoric custom. The Government can scarcely hope to check early marriage; and it has abolished the counteracting forces of widow burning and female infanticide. Moreover, the fact cannot be controverted that the pressure on the land steadily increased during the latter half of the nineteenth century. (*a*) In-

(*a*) *Vide* Census Report, 1901, vol. i. p. 208.

digenous industries have been destroyed, and the growth of the importation of foreign manufactured commodities has been accompanied by an equivalent ruralisation of the Indian population. If that increased ruralisation is not met by an equivalent increase in the productivity of the land, then, since the point after which the investment of further quantities of labour and capital will render a smaller proportional return is more rapidly reached in agriculture than in other industries, there is an *a priori* probability of misery from want ensuing.

But it is difficult to find evidence to prove that over-population in India is a reality; it is still more difficult to substantiate the argument that, were that the case, drought would constitute a desirable check. As Chailley-Bert says, "La densité de la population ne dépend guère—sauf exceptions—que de la température et de la pluie, et varie avec elles." (*a*) Although there is evidence to show that in various places and at various dates the population has increased more rapidly than the means of subsistence, still the exceptions referred to are purely local.[1] The fact that the ratio between rainfall and climate and population is as unvarying as it is, is indeed not difficult to explain, for climate and rainfall have the same influence on the fertility of man as on that of vegetation. Were this not the case, the greatest degradation would be found in those districts which had for the longest time been free from drought. But inasmuch as over-population is confined to restricted localities, and is dependent on

(*a*) Chailley-Bert, *L'Inde*, p. 7.

special causes such as a sudden social and political tranquillity, or the decay in some prosperous district of the industry which produced that prosperity, drought is the clumsiest of all counteracting forces. There is no guarantee that drought will affect the desired areas; and since the introduction of railways, and the disappearance of private stores of grain, there is no guarantee that the power of resistance will be greater in uncrowded districts than among those people who burden the soil upon which they live. So far is this true indeed that it was in Gujarat, "the garden of India," where a land revenue of 20 per cent. was paid, that the greatest mortality occurred during the famine of 1900. (*a*) Female infanticide was a far more logical and far more desirable check in the past, and if the danger is to be obviated in the future it must be through the growth of industry and an increased demand for labour. It is impossible to utilise a means which makes prosperity the sport of the clouds; it is absurd to uphold as beneficial calamities which cause the destruction of all wealth.

The fallacy of the general over-population of India has at least never influenced the policy of the British Government. That Government has realised that the economic stability of India depends on the extent to which insurance, or protection, or prevention could lessen the recurrent danger of droughts, and into the dispute which took place between the advocates of irrigation extension and the supporters of railway construction the question of the ultimate ideal never entered. It would be superfluous to

(*a*) 1900 Comm., pt. i. pp. 91 and 141.

relate here the story of that dispute; but if the policy actually adopted be open to subsequent criticism, it should at least be borne in mind that that policy was not hurried or thoughtless, but was the result of almost half a century of discussion and deliberation.

Irrigation works may actually restrict the area and intensity of droughts within certain limits; but not the keenest advocate of the greater utilisation of her water supply has ever dared to dream of an India wholly immune from drought; and at the point where irrigation against drought fails protection against famine must begin.

There was no little truth in the fancy of General F. C. Cotton when he spoke of India as an "earth spot." (a) But just as that land has enough corn to feed itself in the driest of years with an improved distribution, so, too, its waters are sufficient were their perfect distribution possible. Possible, however, it can never be, for not only are some districts, such as the stony uplands of the Deccan trap, outside the range of engineering aspirations, but the question is ultimately financial, and a crop, like all produce, must bear its due interest on capital outlay. Moreover, in times of protracted drought both wells and tanks may dry up. A tank is a mere store of water, and when one year of drought follows on another, that store is depleted, and it is not possible to restrict consumption in the first year on the expectation of deficiency in the second. Owing to financial considerations also the construction of railways must modify the construction

(a) *Blackwood's Magazine*, May 1910.

of irrigation works. For when the law of substitution comes into play between the two alternatives, it may often prove more remunerative to import than to produce. Moreover, the utility of irrigation is often too far restricted to justify the initial cost, unless railways can also be constructed to market the grain, or to feed less fortunate districts with the surplus of the protected zone. Nor is it completely true that railways can supply none of the direct benefits of irrigation, for the prosperity of the cultivator is increased by extension of his range of markets, and he is given a new incentive to greater production when the sale of his surplus is ensured.

But the utility of irrigation can never be denied, and has indeed been recognised by all ages.

The relative advantages of canals, and of tanks and of wells, must depend on the nature of the soil and the lie of the land; but in respect to the North-West Provinces at least there is little exaggeration in Sir J. Strachey's dictum that "the number of wells is generally a good index of the condition of the agricultural population." (*a*) For wells are the property of the cultivators themselves, and their construction and maintenance is the expression of their prosperity and energy. It is by such small, and often unnoticed, signs as the introduction of, and growing demand for, steam pumps in the Madras Presidency that the real progress of the landed population should be measured.

Mention has already been made of the antiquity of irrigation in India, of the canals of the Muhammadan

(*a*) *India*, p. 234.

Emperors, of the advances made by Tughlak for the construction of wells, and of the tanks which were built up in the narrow valleys of the hills. The industry which had flourished in the fourteenth century was revived again by Akbar and Shah Jehan in the sixteenth and seventeenth centuries, and the Jumna canals of the present day are extensions of the works of the great Moghul Emperors. But in all parts of India, and in all centuries, the cultivation of the land has been promoted by artificial means. The origin of the inundation canals of the Punjab and Sind is beyond the ken of history ; to the Hindu monarchs of the sixteenth century are due the weirs on the Tungabhadra, and Paes relates how there were employed on the construction of a single tank fifteen to twenty thousand men, "looking like ants so that you could not see the land." (*a*) So great was the skill displayed by the native engineers in the economy of water that often the whole stream was exhausted and dried up.[2]

To the engineers indeed and emperors must be attributed the successful construction of the greater works ; but their maintenance was the duty of the villagers. (*b*) When, therefore, with the long wars, which succeeded the break-up of Aurangzib's Empire, and the subsequent establishment of a foreign dominion, the village system degenerated, much of the work of the past fell into disrepair, and the British Government was forced to begin anew. Nor, save in the opium districts, has there been under this Government the same incentive towards

(*a*) Sewell, *A Forgotten Empire*, pp. 161–245, 264.
(*b*) Hunter's *Orissa*, vol. ii. p. 182.

assisting the cultivator in the construction of wells, which the system of collecting the revenue in kind gave to the tax farmers of earlier times.

So much controversy has centred round the question as to the adequacy of the irrigation works undertaken by the British Government that experience and time alone can pass ultimate judgment. The works undertaken under the control of the East India Company were comparatively few in number, and were not remarkable for their financial success. But by 1877 nearly nine and a half million acres were artificially protected, (*a*) and from that date until the present day the work has steadily progressed. The real economic nature of these works and the wisdom of the Government's policy towards them are beyond the scope of purely theoretical estimation. But certain facts are indisputable. On the one hand, the extent and value of those works, viewed merely relatively, are unprecedented and unparalleled. On the other, despite the recommendations of every Famine Commission, it is only since 1904 that there has been any marked increase in the rapidity of extension, or any considerable change in the relative amount of the annual revenue appropriated for irrigation and railway enterprise respectively.

There has indeed been a *prima facie* advantage in the latter, on account of the greater security of the investments and the greater rapidity of return on the capital expended. But the question of their real value in the past is difficult and intricate.

In a country so vast as India, with very limited

(*a*) 1898 Comm., p. 338.

natural facilities for navigation, and an almost total absence of roads, the primary necessity of railways as a protective measure against famine was indeed imperative. By railways alone can the necessary rapidity of transportation be achieved; to them alone has the economy resulting from non-interference with trade in time of drought been due. It was largely owing to the lessons taught by the famines in Orissa and the North-West Provinces, and in Bengal and Madras, before 1880, that the subsequent development of railways took place.

But famines by the ensuing financial strain limit the possibility of supplying that which they themselves demand. It was on that account, and also owing to the lack of capital in India, that the system of guaranteed companies was initiated and so long continued. The value of railways as means of protection must be in part gauged by their primary cost; and this was often excessive when the interest was guaranteed. But the balance to their credit is great. Over two and a half million tons of corn were imported in the last great famine of the nineteenth century to affected districts in a single year, and after the drought of 1907 still more protective lines were demanded. (*a*) When the increase in mileage from 4255 miles in 1870 to 32,839 in 1911 is taken into consideration, and the horrors of such tragedies are recalled as that of Rajputana in 1868, where no means of transport existed, the value of the service that railways have rendered in the past, and the hope of security which they afford for the future, seem indeed inestimable. But still, in spite

(*a*) Report on Relief Operations, 1907, p. 137.

of growing financial prosperity, the projection of new lines is a strain almost too great for the Government, and no system of guarantee is wholly satisfactory. If waste in construction is to be prevented, and such loss of revenue as has occurred in some instances in the past, owing to the Government's purchasing a commodity at a price which is artificially enhanced by its own guarantee, is to be avoided, the inducements to private adventure must be curtailed. But as the guarantee system of 1896 showed, when those inducements are diminished they do not always prove sufficient to call capital into the market. Whether this restraint upon the investment of foreign capital in Indian transport is wholly undesirable, whether indeed the investment in the past has not been excessive, is a problem which can only be solved by a closer investigation of the moral and economic effects of railways upon the population as a whole.

Viewing the question more especially in its bearing upon that of famine relief, regard must be paid to the ultimate, as well as to the immediate, effects of railways, and to the fact that thus viewed they are nothing more than an insurance against risk. The success of that insurance must be estimated, not merely by the amount of corn imported into famine-stricken areas, nor merely by the annual revenue accruing from railways to the Government, but also by the extent to which it has affected more ancient methods of self-protection. It involves no criticism of the ultimate benefit accruing from the Government's policy to consider the possible damage which that policy has caused in the

past. The extraordinary rapidity with which the construction of railways in India was achieved produced an economic revolution in that country, which, like all revolutions, was not unaccompanied by suffering. The obligation to save life in times of drought and the necessity of lines of strategic utility (for it was the Mutiny which gave the first real incentive to construction) have been the cause of that rapidity; and it has had for effect the destruction of the native industries, and the concentration of labour on that very employment to which droughts are the most dangerous. Had strategic, or economic, considerations allowed the change to be more gradual, it is conceivable that greater powers of resistance might have been shown by the native industries, that the lessons of the West might have been taught before destruction was inevitable, so that labour might have drifted to other occupations as well as to agriculture. The revolution produced was too sudden, the historic methods of protection against famine were abandoned, and although indeed security of life was increased, although grain was imported when required and paid for by doubtfully remunerative work, still it was also exported when the crops were abundant, and it is open to doubt if this depletion of the native stores was beneficial. In receipt for the produce he sells, the cultivator must obtain some equivalent, and the question has to be met, whether he expends that equivalent on increased consumption or on increased capitalisation of his property, or whether he puts it aside as an insurance against drought, or whether he merely squanders it upon pleasures

he can ill afford. Writing on this point in 1902, the Government of India expressed it as its opinion that "the agricultural classes have not, as a rule, yet learnt to regard a good harvest, not as an occasion for larger expenditure, but as a means of insurance against failure of crops." (*a*) Before the agricultural classes possessed facilities for marketing their surplus from years of abundance, insurance against years of deficiency was often unavoidable.

The effect of this extravagance has been the enslavement of these classes to the money-lender. But before it is possible to judge this fact in its true proportions it is necessary to investigate the reality of the existence, and extent of the utility, of such stores as were kept in the past.

Modern writers have differed widely in their estimate of the amounts actually preserved. It seems probable in view of the history of past calamities that Robert Knight's statement that the ryots of Orissa never deemed themselves safe without a "full two years' store of rice in their homestead" (*b*) is somewhat exaggerated. More probable are the calculations of the Orissa famine report and of Sir H. J. S. Cotton (*c*) that "the old hoarding system insured a sufficiency of grain to carry the population of any province through a single bad year."[3] It is, however, not apparent from the accounts of early historians that immunity

(*a*) *Land Revenue Policy* (published by order of the Governor-General in Council, 1902), p. 141.

(*b*) Quoted Digby, "*Prosperous*" *India*, p. 510.

(*c*) Sir H. J. S. Cotton, *New India*, p. 97. "Three-quarters of a year's supply."

against such a single year's rain failure was really assured. Mention has already been made of the stores collected by the native emperors partly as war-chests and partly as means of protection, and of the pots of grain buried by the peasants in the ground. (*a*) But before the nineteenth century history mentions only the failure of these savings, never their success. Perhaps the evidence of greatest value is that afforded by Col. Etheridge concerning the famine of 1812. "In some districts mothers struggled with husbands to rescue innocent and helpless children from being killed by their fathers to appease uncontrollable hunger." (*b*) In other districts private individuals possessed such stores that no relief was required. In fact the existence of such stores depended on the fertility of the land and the foresight of the people in different localities.

There are some districts at the present day out of the range of railways, such as those of Kumaon and Garhwal on the southern slopes of the Himalayas, where the old customs are still preserved. The deficiency of a single monsoon entails in such regions but little suffering, but it is doubtful if the stores of grain have ever been sufficient in the past to meet calamities of more than one year's duration.[4] But the question is not one of complete immunity, but of the effects of the sudden revolution which overtook the ancient system of insurance. The problem is one of comparative cost, and it is not of merely academic interest to compare the expense

(*a*) *Vide* Mackenzie MSS., vol. vi. p. 33.

(*b*) Eth., *Report*, pp. 33, 43.

entailed by this means of self-protection with that of more modern times.

The initial expense of the storehouses, or of buried pots, when granaries were private and consequently small, was negligible in itself or in comparison with what the Government would have to afford. But beyond that initial expense lay nothing but the exchange value of grain, when that value was at its lowest, and the loss of interest on the capital thus locked up. The real loss was the loss of life because the stores were insufficient, and the loss of the produce of that land which in consequence went out of cultivation. It was partly in view of the cheapness of this system of relief that a minority of the Commissioners in 1880 asserted the absolute necessity of storage of grain by the State. (*a*) Whether in view of the more complete organisation of the railway system, and the increased European demand for grain, the adoption of such a policy would be advisable at the present day is another question. But the desirability of the storage of fodder is now recognised, and the existence of granaries involves certain economies which are not at first sight apparent.

A famine under modern conditions has a much greater effect upon the country as a whole than in past times. The corn dealers and the railway companies, it is true, have in some instances made abnormal profits.[5] But those profits have been made firstly at the cost of the affected area, which is drained of its money, so that the cultivators, without Government assistance, are often com-

(*a*) 1880 Comm., Min. Report, pt. i. pp. 66–9.

pletely unable to carry out the ordinary agricultural operations when the rains come. They have been made partly at the cost of commerce in general. For the annual exportable amount of corn has been rendered so uncertain that its value has been reduced, or, in other words, the cost of marketing it increased; and the railways have on some occasions been unable to meet the ordinary demands of merchants, when occupied with the transport of excessive quantities of grain. (*a*) The effect of storage is to distribute the cost of protection against famine over a greater length of time, the effect of importation is to distribute it rather over a greater area. The general rise of grain prices over the whole of India, and the slightness of the local variations of these prices, have been amongst the most striking characteristics of modern famines. The desirability of a system by which the prosperous should help to bear the burden of the distressed is unquestionable, but the trade statistics of years succeeding famine show a diminution in the country's purchasing power which would be less sudden were insurance in anticipation of drought spread over a longer period. In addition to these indirect losses there is to be reckoned the inevitable expense of modern relief works; to the comparative lack of value in the actual work performed must be added the cost of implements and houses, of hospitals and charity; and against the loss on the capital locked up in granaries must be written off the interest on accumulated debt.

These considerations are important when con-

(*a*) *Vide* Railway Report, 1877–8 (C. 2179), sec. 62.

sidering on broad lines the protective measures of past and present governments. But one fact alone remains proved, that whatever the cost, whatever the ultimate effect, the immediate efficiency of railways in checking mortality has been unparalleled. Moreover, India is in the process of becoming a single economic unit—a fact the importance of which the growth of her sea-borne trade may in some way measure. But though the efficiency of railways in affording immediate relief is unquestionable, though to them is due the development of commerce, closer inquiry must be made into the nature of the economic change which they initiated, if the history of the famines of the past and the problem of the droughts of the future is to be correctly understood. Considerable division of opinion has existed as to the extent of the poverty of the masses of the population in India. Estimates of the actual income per head of the whole populace have differed somewhat in degree, but have shown a steady tendency to rise as the nineteenth century passed into the twentieth. The lowest is that of Lord Cromer in 1882, which gave a net income of Rs.19·1; (*a*) Naoroji reckons it at a little over Rs.39; (*b*) while J. D. Rees makes a rough estimate at Rs.30, and quotes F. J. Atkinson to the effect that between 1875 and 1895 there was an increase from Rs.25 to Rs.34. (*c*) The increase of the national revenue has of course been largely due to the growth of

(*a*) Quoted Digby, "*Prosperous*" *India*, p. 442. Estimate 1882.

(*b*) Naoroji, *Poverty of India*, 1901 ed., pp. 2, 19, 31.

(*c*) J. D. Rees, *The Real India*, p. 293.

industries other than agriculture. But there can be but little doubt that the actual production per head of the purely agricultural population (apart from the opium fields or tea plantations) has considerably increased since the date when "the reporting authorities" could write "that they agreed that there was a large number of cultivators who did not get a full year's supply from their lands," (*a*) or Sir C. A. Elliott, when settlement officer, that he "did not hesitate to say that half our agricultural population never know from year's end to year's end what it is to have their hunger fully satisfied." (*b*) But this increase in production and possible improvement also in the standard of living was accompanied up to the end of the nineteenth century by an ever greater subjection to the tyranny of the money-lender.

As Major Phipson said, " An Indian money-lender is nothing but a merchant in the wrong place" ; (*c*) but when two-fifths of the population are in the hands of that class, which the Deccan Raiyats Commission described as being the least fitted in the world to use the powers of an irresponsible landlord, the undesirability of his position becomes the point most worthy of attention.

If the causes of this indebtedness, which grew steadily as the century advanced, can be discovered, there will be afforded a better opportunity to place in its true light the value of the protective

(*a*) *Report on Econ. Condition of Masses in Bengal Pres.*, 1887–88.

(*b*) Quoted Digby, "*Prosperous*" *India*, p. 509.

(*c*) *Ind. Poverty and Ind. Famine*, Major C. B. Phipson.

measures undertaken by the British Government up to the present day. Weaving and other home industries, as must always be the case at times of economic revolution, have been gradually eliminated, and wages have in many cases not risen equivalently with prices. (*a*) This adverse ratio of wages to prices, as well as the indebtedness of the cultivating classes other than labourers, may, as the Commission of 1900 declared, be "merely a transient phase of a great economic movement." (*b*) But for the moment it is not ultimate, but passing effects, it is not the prospects of the famines of the future, but the facts of those of the past, which are under consideration.

The Commission of 1880 gave it as their opinion that in some instances irrigation had an ultimately deleterious effect upon the fertility of the land, owing not merely to the reckless use of water, but also to the increase in the number of crops annually reaped. But such impoverishment can only occur when insufficient manure is returned to the land, and this very insufficiency is itself the effect of lack of capital. The real cause has to be sought in the introduction of a system of legal rights, which during the period of economic transition has hastened the disorganisation of the previously existing social system

The vastness of India and the heterogeneity of its customs render it as impossible to summarise with accuracy as to give in full detail the systems of land tenure or the nature of land legislation. But despite local variations in laws it is possible to trace

(*a*) 1898 Comm., p. 363. *Vide* "Prices and Wages."
(*b*) 1901 Comm., p. 77.

the development of those fundamental principles by which the policy of the British Government has been guided. The effect of this policy in the latter half of the nineteenth century, while on the one hand increasing the security and prosperity of agriculture by the improvement of local administration or the restriction of the power of the landlords, has been on the other to give the cultivating classes an economic liberty which when misused could produce economic ruin. For the greater temptations to extravagance thrown in their way owing to the growth of trade, and the increased use of money, have been accompanied by an enhancement of the value and loosening of the tenure of their holdings.

Under Lord Cornwallis, when the State abandoned its claim to be supreme landlord to the Zamindars of Bengal, there was adopted the system of recognising the full proprietary rights of the people in their estates. In other Presidencies of India, owing to differences in the systems of land tenure, the Government sometimes adopted a similar policy, sometimes dealt directly with the tenants and attempted to strengthen their position by giving them a right of occupancy and a right of alienation. Moreover, an attempt was made during the course of the next fifty years to protect the tenant against rack-renting and arbitrary ejectment. But the augmentation of the mortgageable value of land, owing to increased security of tenure, was unaccompanied until the close of the century by any effective check on the temptation to borrow, or by any restriction of the money-lender's ultimate power to distrain. The abolition of usury laws in 1855

affords one instance of the effect, so frequently unfortunate, of the influence of Western thought upon Eastern administration, and although the subsequent tenancy acts have granted to the bankrupt the right to withhold from the distrainer tools and other possessions essential to the conduct of his business, still, it is doubtful whether even at the present day the inapplicability of Bentham's logic is fully realised.

But, apart from other effects, the creation of occupancy rights in 1859, and the substitution of contractual and legal relations in place of the ancient patriarchal relations, tended to weaken the security of the tenants at will, and to increase the friction between the new occupancy tenants and their landlords. So early as 1880, according to the report of the Commission of that date, " landlords and tenants were becoming yearly more hostile; so that a landlord will generally refuse any aid to his occupancy tenants when they are in difficulties, and will do all he can to ruin them and drive them off the land." (*a*) The effect was in fact twofold, as the Commission proves. In the first place, the tenants had lost their only alternative to the money-lender; in the second, the landlords did all in their power to prevent the creation of rights of occupancy, or, when that failed, to drive the holders of those rights into bankruptcy.

The actual number of ejectments is no doubt an imperfect criterion of the insecurity produced, for the tenants at will would often be reinstated after their power to improve their status had been

(*a*) 1880 Comm., pt. ii. p. 117.

destroyed. (*a*) But the number of forced sales in the Punjab became so great in the last decade of the century that the Government made a special inquiry into their cause. In the year 1899–1900 the total area of cultivated land transferred by sale or mortgage to "non-agriculturists" amounted to no less than 190,077 acres. (*b*) Nor was it only in the Punjab that the economic position of the landed classes was precarious. The Commission of 1898, although expressing as its general, but strictly qualified, opinion that the resisting power of the people in time of famine had increased, criticised strongly the optimism of the local governments, and pointed to the malguzars and the tenants of the Central Provinces, who had fallen hopelessly into debt, and the ryots of the Deccan, as classes amongst whom no signs of improvement could be discovered. (*c*) It is important to realise the force of these facts if the history of famines is to be understood; but they do not necessarily involve a reflection on the Government's policy. All changes involve distress, and if the change made in the system of tenure was too sudden, if half a century was spent in the solution of the problems which this change involved, it does not necessarily follow that the change in itself was bad, or that prosperity in the future may not compensate for some misery in the past. Half unconsciously a revolution was initiated, and gradually, haltingly at first, but resolutely enough, the Government has

(*a*) *Vide* W. H. Moreland, *Rev. Admin. of U.P.*

(*b*) Punjab Admin. Report, 1900–1, p. 21.

(*c*) 1898 Comm., pp. 361–2.

attempted to produce order from disorder, and to control the channels in which the stream of change shall run.

But to some extent, no doubt, the distress of certain sections of the agricultural classes during the latter half of the nineteenth century was due to the policy of the Government in reference both to their habits of borrowing and indebtedness, and to the collection of the Land Revenue. For the Government did not at first realise that its property laws had increased the capital saleable value of land without in any way increasing its yearly yield, and that in consequence the cultivator's power of obtaining money had grown, without any equivalent growth in his capacity to produce wealth. It persisted in believing that these classes were possessed of hidden reserves, and brought forward the extent of their borrowings as a paradoxical proof of the strength of their economic position. Thus an ex-collector of Poona, commenting on the fact that, when pressure was brought to bear, the ryots always ultimately succeeded in paying the land revenue, was able to write: "There could not to my mind be a clearer indication of the fact that the cultivating classes possess a reserve of resources not always attributed to them. It may be that many not in debt before had to apply to the village money-lender, and that many already in debt had to involve themselves in heavier liabilities. But to raise money on loans necessitates the possession of some sort of credit." (*a*) Nor did this attitude express the unique cynicism of a single individual.

(*a*) Quoted V. Nash, *The Great Famine*, 1900, p. 90.

So recently as 1902 a Government publication referring to the Land Revenue contained a remark in some ways parallel. "The rapidity with which the land is passing into the hands of the money-lending classes has sometimes been adduced as evidence of the burdensome character of the assessment. But as a matter of fact there is no better proof of the moderation of the assessment than the great demand which has arisen for it on the part of the money-lending capitalists." (*a*)

The point of material importance, however, is not the weight of the actual assessment, but the extent to which the Government has fortuitously aided those money-lenders, partly owing to Western legal theories not wholly compatible with Eastern civilisation, and partly on account of their utility in assisting in the collection of the land taxes. The point is not primarily the percentage of net produce taken by the Government, but the extent to which the modern method of collection and assessment has added to those forces which have tended to remove all incentive to frugality, and personal insurance against famine, and thus to weaken the individual's power of resistance.

The Commissioners of 1900, considering this question in reference to the Presidency of Bombay, concluded that the cultivators failed to reap the full fruits of their industry and were kept in a general state of indebtedness, "that the rigidity of the Revenue system forced them into debt, while the valuable property which they held made it easy to borrow." "This is the state of things to-day,"

(*a*) *Land Revenue Policy*, p. 261.

they concluded, "and while it remains unaltered, indebtedness in the Bombay Presidency must continue and increase." (a)

Four years later the necessary reform was accomplished by means of a system of automatic remissions. But the causes of the indebtedness of the Bombay Deccan ryot are in fact peculiar. By the Hindu law of inheritance the holdings, which in many cases have long been too small for the adequate support of a family, tend to be divided into more and more minute sections; the property of a single man is often composed of half a dozen scattered and barren parcels of land; and the slightest variation from the normal rainfall must almost inevitably drive the poorer ryots into debt.

There may indeed in the past, as Sir W. Robinson (b) [6] and Sir W. Hunter contended, have been some cases in which "the assessment was so high as not to leave enough food to the cultivator to support himself and his family throughout the year." (c) But the actual percentage of taxation has steadily sunk, and has probably never since 1855 been so high as under native rule. The hardships resulting from the land revenue assessment were the effects of indirect, not direct, causes. Of these causes the most important are the method of the assessment and the rigidity of the demand. The agricultural classes have confessedly never learnt to use a good harvest as an investment against a bad, "so that

(a) 1901 Comm., pp. 106–7.

(b) Acc. and Papers, 1878, LIX. pt. i. p. 2.

(c) Sir W. Hunter before the Governor-General's Council, 1879. Quoted Dutt, *Econ. Hist.*, p. 490.

the assessment can only be met by borrowing or by stinting the necessaries of life." (*a*) There was a merit in the old native method of collecting as much as was possible, and remitting in years of deficient crops by the simple means of a tacit acknowledgment of the impossibility of collecting, which the more inflexible system of the English does not possess. The Commissioners of 1900 penetrated to the root of the matter when they said, " Whether the assessment be moderate or full, we have no doubt that it cannot be collected in short years without forcing the ryots into debt." (*b*)

The policy of the Government has indeed been influenced throughout the century by two theories, of which one is only partially true, the other only partially relevant. The first of these theories, the influence of which has been incalculable, is that the Land Revenue was no tax, but the appropriation by the Government of part of the unearned increment of land. Thus it was that a fraction of the landlord's receipts was taken as the basis of the assessment, on the theoretical assumption that the incidence of the tax could not ultimately be shifted. But rack-rent is the paradox of economic rent. When an alternative to agriculture as a means of subsistence is practically non-existent, it is ridiculous to speak of earnings sufficient to call capital and labour into the industry; it is no less ridiculous to contend that rent does not enter into the cost of production, when the effect of that rent is so to lower the standard of living and efficiency that the cultivating classes, forced on to the margin of

(*a*) *Land Revenue Policy*, p. 42. (*b*) 1901 Comm., p. 91.

existence, are rendered unable to sink capital in the land they till, or to maintain the personal energy with which they are endowed. Whether the land revenue is derived from rent or from taxation, or is a "thing *per se*," (*a*) is a question of simple fact. Where the demand is so heavy, or has raised the sums claimed by the landlords to such an extent that the efficiency of the cultivator is decreased, it is a tax oppressive in its nature; where that has not been the case it may be acknowledged as a form of rent. There is, however, a real difficulty in the problem inasmuch as the natural forces of competition do not come into play. There is an element of truth as well as of exaggeration in Vaughan Nash's dictum "that government first fixes the standard of living and cultivation, and then proceeds to drain off all winnings of the people, which rise above the mark which has been fixed." (*b*)

The second theory by which the Government has been influenced is that the antiquity of the land revenue as a source of taxation is a justification superior to all objections. To some extent this attitude has been of value inasmuch as it has checked the extension of the Permanent Settlement System of Bengal, which is rather a promise of exemption than a method of taxation. To some extent it has been unfortunate, inasmuch as it has made the Government less willing to consider objections which have been raised, or to take into account the effects of changed economic conditions.

(*a*) Baden-Powell, *Land Revenue*, p. 49.
(*b*) *Vide* Nash, *The Great Famine*, 1900, p. 245.

Reference has already been made to the increasing ruralisation of India and the dangers which this movement involves.[7] So long ago as 1880 a Famine Commission pointed out that no protective measures could be adequate which did not include some attempt to diversify forms of employment. (*a*) It is, however, no light task to stem the flow of an economic tide. The agriculturists continued to increase in numbers, and that increase has been brought about by absorption of other classes, not merely by spontaneous growth. All modern industrial development involves specialisation and concentration of employment. It is no more necessarily to the disadvantage of one land that its native industries should wane, and its production of raw materials wax, than to another that the reverse should happen. If the home industries in India have suffered in the struggle with Western manufactures, English agriculture has suffered equally from free competition. But India is clothed more cheaply, and England is fed more cheaply, and the productivity of the land of the one, and of the industrial agents of the other, has more than equated their losses.

The mere productivity of a country, however, is an imperfect measure of its prosperity. Industrial specialisation may involve social dangers, and the benefit of concentration depend upon its form. There is an obvious theoretical advantage in concentrating labour and capital on those industries which will most rapidly, most certainly, and for the longest period render an increasing return on the amounts invested. The productivity of land

(*a*) 1880 Comm., pt. ii. p. 175 seq.

is limited by its chemical composition, that of manufactures by the inventive capacity of man. In agriculture machinery must ultimately displace labour, or labour displace machinery. In industry the growth of the one creates an increased demand for the other.

Apart from this purely theoretical point, however, there are direct and peculiar dangers in the decay of native industries in India. It was estimated that in the famine of 1899–1900 the loss to that country through failure of crops amounted to something over £80,000,000. (*a*) The greater the percentage of the population employed and of the capital invested in an undertaking subject to such fluctuations, the less will be the rigidity of the country and its power to withstand the strain of deficient monsoons. Doubtless manufacturers would themselves suffer in times of drought owing to the diminution in demand, but they would not add in the same way to the year's deficit by inability to produce. The situation at the moment indeed, though it be but a passing phase, is perhaps more unfortunate than would be a still greater concentration on agriculture. For the position of the native artisans has been undermined, without complete substitution having been accomplished. As the Gaikwar of Baroda has said, " It is the humble weavers in towns and villages, the poor braziers and coppersmiths working in their sheds, the resourceless potters and ironsmiths and carpenters, who follow their ancestral vocations in

(*a*) T. W. Holderness, Paper read before Society of Arts, March 13, 1902.

their ancestral homes, who form the main portion of the industrial population, and who demand our sympathy and help. It is they (more than the agriculturist, or the mill and factory labourers) that are most impoverished in these days and are the first victims to famines." (*a*) If real help is to be extended to these classes, and the famine problem is to be ultimately solved, then other industries uninfluenced by the variations of seasons must be able to utilise their labours. It is these classes and the agricultural labourer who have lost the most and gained the least in India's industrial revolution. The Commission of 1898 drew attention to the decrease in the real wages of labour in Bengal and the North-West Provinces, (*b*) and although since that date the conditions in North India have improved, in Madras, in parts of the Deccan, and Bombay the rise in wages has been less rapid than that in the cost of living. (*c*) Manufactured goods of the West have been imported, raw produce has been given in exchange; the price level of the former has sunk with the increase of supply, the price level of the latter has risen with the increase in demand. It is true, no doubt, that those districts which export the greatest quantities of raw produce and grain are on the whole the least subject to drought. But the importation of manufactured articles, and the consequent decay of home industries, cannot be measured by the statistics of the export trade. Though pulse and millets, the products of the poorer districts

(*a*) *Report of Industrial Conference*, 1907, pp. 26–7.
(*b*) 1898 Comm., p. 361. (*c*) *Vide* "Prices and Wages."

of India, constitute but a minute fraction of the total export of grain, the explanation of the strength of the demand of those districts for British textiles is to be found in the figures of the coastal trade and the extent of internal commerce.

It is useless to regret the changes which world commerce and world competition involve. The duty of production is to demand. But the fact that an ancient system has decayed does not exclude the possibility of establishing a better, and the passing of the old order in India has not been unaccompanied by the growth of a new. But a more detailed investigation is necessary before the prospects of the future can be estimated, or the facts of the past fully realised.

The strength of the economic position of such a country as India does not depend only on the actual value of the commodities produced.

It may be more cheap to export raw goods and import manufactured goods. But if India is to win a stronger position as buyer and seller in the markets of the world, she must deepen the channels and regulate the action of her stream of produce. If she is to bear the strain which drought entails, she must stiffen her back against it. She is a country rich in minerals, rich in railways, abundantly supplied with labour power. The output of her coal mines and her iron and brass foundries has increased but slowly. Even together with her petroleum refineries and her paper mills and her lac factories it constitutes but a minute fraction of her national revenue. Home weaving is still the

greatest of her industries after agriculture, though not even the most ardent of its champions dare prophesy its continuance. (*a*) The fate of her silk, and of her indigo and sugar trades seems sealed. New processes have undermined the two latter, drought has irreparably damaged the former. (*b*) Cotton and jute alone have made rapid progress. But cotton is itself subject to the influences of climatic conditions, and the growth of its manufacture has not been concomitant with growth of the production of fibre.[8] If the concentration of the agents of production on a great variety of undertakings is to prove advantageous, it must be on industries unaffected by drought. If the natural forces of international competition have not accomplished that aim, then deliberate and determined action alone can achieve it. It has been said that the inefficiency of the Indian labourer, his unwillingness to leave his village and his home, his refusal to submit to regulations, render competition with the Western world impossible. If it be true that the supply of labour for factories is inadequate, or that to check the tendency to ruralisation is impossible, then all attempts to broaden the basis of protective measures against famine must prove fruitless. But where, as in the Cawnpore cotton mills, real difficulty has been experienced, the fault lay rather in the conditions of labour than in the unwillingness of the people. There is no lack of proof that where the conditions of work are good

(*a*) *Vide* Report of Third Industrial Conference, 1907.

(*b*) *Vide* Mukerji, *Report Inquiry into State of the Tasar Silk Industry*, Bengal, 1905.

no recruiting agency beyond the employees themselves is required. (*a*) Nor is the relative inefficiency of the native labourer in industry sufficient ground for abandoning the hope of employing him. Droughts are an inevitable tax on the community, and if that tax can be more lightly paid in the long run by raising the price of manufactured wares, then such an action is justified. How compensation can best be made for the decay of indigenous industries, if the present tendencies be dangerous, is a problem for the financial experts of the Indian Government. The majority have shown little inclination to advocate protection, (*b*) and probably the views of Professor Lees Smith would be largely endorsed by official opinion. "Economic progress," he has written, "is dependent upon pressure of keen competition. Industries which are in a position of unhealthy security because they are sheltered behind a tariff wall lose the spirit of improvement." India's "great danger is inertia. The resources of the country are not being opened up by Indian initiative." (*c*) The truth of the economic generalisations is obvious enough. But the lack of initiative on the part of the people is the natural outcome of the disappearance of their means of livelihood. It is a misconception of the doctrine of the survival of the fittest merely to view with complaisance the deaths of those that succumb. It is a misconception of the doctrine of

(*a*) *Vide* Paper read by S. W. Fremantle before Society of Arts, April 20, 1909.

(*b*) *Vide* Government Blue Book, ccl. 1931.

(*c*) Lees Smith, *India and the Tariff Problem*, pp. 66–7.

free trade merely to refuse to regulate industrial development. A bureaucracy may not be eminently suited to inspire enthusiasm; but it can exaggerate its fear of producing inertia. It has at least peculiar opportunities for assisting, for teaching, and for protecting. The upper classes in India, who are liberally educated, overcrowd the legal and journalistic professions; but they have been inspired with few business ambitions, and possess no technical experience. New companies in India, which advertise for capital in England, often make no endeavour to raise it in the country itself; and sometimes, when a genuine effort is made, it is found that the interest obtainable on industrial enterprise is insufficient in the East to call capital into the market because the competition among capitalists is less keen. But when peculiar opportunities have been offered initiative in India has not been lacking. The cotton industry owes its origin to the failure of American competition during the Civil War; the jute industry to the failure of the Russian hemp supply during the Crimean War. Industries are mutually dependent, and gain strength by the conversion of "waste" into "bye" products. But the possibility of that conversion itself depends on the scope and strength of demand, and the complexity of the economic structure.

What form the economic development of India will take in the future it is scarcely possible to prophesy. Of the two great problems which the industrial revolution has involved—the problem of agriculture and the problem of industry—the one is

in process of solution, and the other remains still unsolved. But all measures which have been adopted in the past, or may be deemed advisable in the future, must be modified by the threat of drought, and directed towards the avoidance of famine. They may be either affirmative or negative; they may attempt either to prevent drought, or to insure against loss from it. It is possible now to estimate more accurately what the real value of the insurance measures of the past has been.

Foreign competition resulting from the improvement of the means of communication has entailed the decay of home industries. A direct loss of labour power has been suffered; for climate and custom render work on the fields possible only at certain times of the day and year, and among certain classes of society. Improved facilities for the marketing of his produce have raised the income and increased the prosperity of the cultivator; but the abundance of actual cash resulting from the sale of grain and increased power to borrow have tempted him to reckless expenditure. Though the value of land in rice, wheat, cotton, and jute growing districts has been considerably raised by the growth of demand, the enhancement of the capital value of land holdings produced by the granting of property rights has not necessarily involved any increase in the productivity of those holdings. The agricultural classes have suffered a direct loss of the capital which they carried on their persons in the form of bangles and rings, owing to the closing of the mint to the free coinage of silver. Thus a new form of capital in some

ways fictitious in its value, always dangerous in its misuse, has been substituted for a capital acquired by the economy of wealth. The money-lender has developed from a pawnbroker and a speculator in "futures" into a potential distrainor. In not a few cases he has used his power to promote lavish expenditure on foreign commodities or domestic feasts, with the object of ultimate distraint in view. Temptations to unnecessary extravagance have been accompanied in some instances by a growing pressure from above for rent, by an inelastic demand for land revenue, and to a less degree in the more distant past, by an insecurity resulting from enhanced assessments. The wage earner has suffered in some districts from a rise in prices, the artisan from a diminution in demand for his wares.

But these forces which have influenced the development of India have not been at work in all places or at all times. They are the fundamental causes of a general development, not necessarily the particular causes of any peculiar phenomena.

Against them are struggling those other forces which are created by the improved methods of modern industry and modern commerce. The statute book which shall regulate the course of industrial development has yet to be written; but real progress has been made in agriculture by the land legislation of the last twelve years.

Although the preceding tenancy acts[9] had protected occupancy tenants from rack-renting and ejectment, and the instruments of their industry from distraint, they had up to 1901 never succeeded in checking indebtedness, or wholly preventing

oppression by landlords. A step forward had been made in 1898, when, by the Central Provinces Tenancy Act, rents were fixed for the term of settlement. But it was not until the first year of the twentieth century, when the alienation of land to non-agricultural classes was finally prohibited, that the power of the money-lender was restrained.

"On ne résiste pas aux lois économiques," (*a*) comments Chailley-Bert on this Act, and it is indeed open to doubt if legislation, which does not ameliorate, can check the logical results of distress. The act decreased the mortgageable value of land; it did not check the instinct to borrow which past legislation had fostered.

Protection against famine under modern conditions is a question of moral and material progress, and, owing to the nature of those conditions, the moral progress is the pre-essential of the material. That moral progress has been achieved by the same method as Raiffeisen adopted in Germany over half a century earlier.[10] The power of the money-lender has been curtailed by the removal of his *raison d'être*, and the frugality of the people fostered by making them their own bankers.

The Co-operative Societies Acts of 1904 and 1912 have prevented the recklessness of individuals by enforcing mutual responsibility, and lending on character, and that of the members as a whole, by enforcing unlimited liability. Agriculture is promoted by loans to individual cultivators for the purchase of its requisites; and that duty which

(*a*) Chailley-Bert, *op. cit.*, p. 277.

the Government by the Acts of 1883 and 1884 (*a*) attempted to perform is being gradually rendered unnecessary by the energy of the people themselves.

The value of this movement it is too early to estimate; but, granted the success which the latest figures seem to augur,[11] it is difficult to conceive a limit to its usefulness. The Government had in part solved the problem of famine insurance and protection by the financial decentralisation and provincial responsibility initiated in 1870, and by the Famine Insurance Fund of 1878; private charity had assisted by the foundation of the Indian People's Famine Trust,[12] but the ultimate solution lay in individual frugality, and that frugality co-operation alone has succeeded in promoting.

Moreover, a new school of thought is arising in India. The policy of *laissez-faire* towards industry is now being gradually abandoned. Governmental inquiries are made into the condition of industry; information is published, local governments have even experimented in new processes. (*b*) The results up to now may be meagre; but the first steps have been taken, and to turn back is impossible. The realisation of the necessity of encouraging personal endeavour is overcoming the fear of restraining spontaneity of action. Once it is realised that not merely agriculture, but the whole

(*a*) Loans Act, XIX., 1883; Loans Act, XII., 1884.

(*b*) *E.g.* steam pumps, aluminium, and chrome leather in Madras.—*Vide* A. Chatterton, *Note on Industrial Work in India*, 1905.

economic welfare of the land is endangered by droughts, measures will be adopted to strengthen and protect the whole economic structure of society, and those measures will be active, not negative, creative, not defensive.

APPENDIX A

PURELY local famines, or those only found mentioned in secondary authorities, without duration, extent, or intensity being given, are not mentioned in this list; nor are those droughts which failed to cause "famine conditions." It is difficult to draw a definite line between "scarcities" and "famines." But were all to be given it would probably be possible to find proof of local failure of crops, and ensuing distress, in some part of India in every year of the last two centuries. A few famines which scarcely come up to the necessary standard are inserted for special reasons, which are made clear in the fifth column. It is impossible to mention all the authorities, and the system has been adopted of mentioning only those which are at once the most reliable and the most available for reference. Other references are to be found in the foot-notes and in Appendix D. N. = Native and B. = British States.

Date.	Locality.	State.	Reference.	Remarks.
297 *circa* .	Magadha.	N.	Dutt, *Hist.*, vol. ii. p. 317.	This is merely a legend.
445 ,, .	Kashmir.	,,	*Ibid.*, vol. iii. p. 57.	The date is not definitely known.
917–18 .	,,	,,	Stein's *Rajat*, bk. v. VV. 271–7.	Great mortality; no apparent steps taken to mitigate distress.
1033 . .	Hindustan.	,,	Dow, vol. i. p. 85; Briggs, vol. i. p. 103.	In many parts of the world; accompanied by joodry plague.
1116–19 .	Deccan and Burhanpur.	,,	Elliot, vol. viii. p. 36.	..
1200 . .	Bombay.	,,	Eth., p. 88.	Legend that it lasted twelve years.
1259 . .	,,	,,	*Imp. Gaz. Ind.*, vol. i.	..
1291 . .	Delhi and Siwalik district.	,,	Elliot, vol. iii. p. 140; vol. vi. p. 47.	"Next year such rain fell as but few people could remember."

Date.	Locality.	State.	Reference.	Remarks.
Between 1296 and 1317.	Delhi country.	N.	Briggs, vol. i. p. 556; cf. Elphinstone, 399.	The exact date of this famine is not ascertainable: probably *circa* 1305.
1343-45 .	,,	,,	Briggs, vol. i. p. 428; Elliot, vol. iii. pp. 238 seq., 612, 620.	People migrated to Bengal; also plague.
Between 1351 and 1363.	Kashmir.	,,	Briggs, vol. iv. p. 457.	..
1396 . .	Deccan.	,,	Eth., p. 99; Scott, vol. i. p. 56.	Reported to have lasted twelve years.
1423 . .	,,	,,	Briggs, vol. ii. p. 405; Scott, vol. i. p. 102.	The Sultan prayed (in 1424), and rain came.
1471-72 .	Bijapur district. All Bahmini kingdom and Bombay.	,,	Briggs, vol. i. pp. 493-4.	No grain sown for two years.
1494 . .	Delhi country.	,,	Elliot, vol. vi. p. 187.	..
1500 . .	..	,,	Baber's *Mem. Talbot*, p. 61.	All relief prevented by wars.
1520 . .	Bombay.	,,	Eth., p. 100.	Caused partly by war; no relief.
1527 . .	Sind.	,,	,, p. 16.	Lasted six months; caused by crop burning.
1540-43 .	,,	,,	,, p. 17.	Same cause, then two years' drought.
1540 . .	Coromandel Coast.	,,	*Investiga. Portug.*, vol. xvi. p. 279.	Spread over the east coast of the Red Sea.
1554-55 .	Delhi, Agra, and Bajana districts.	,,	Elliot, vol. v. p. 490.	People fed on acacia seeds and hides of cattle.
1556 . .	Hindustan.	,,	,, vol. vi. p. 21.	People fed on each other.
1576 . .	Delhi country.	,,	,, ,, p. 207.	No relief.
1577 . .	Kutch.	,,	Eth., p. 25.	Liberal relief and cooked food.
1592 *circa* .	Sholapur district.	,,	Scott, vol. i. pp. 314 and 360.	Also a pestilence.
1594-98 .	Central India, Hindustan.	,,	Elliot, vol. vi. pp. 94, 193.	Reported all over Asia; also apparently plague; lasted three or four years.
1613-15 .	Punjab.	,,	Elliot, vol. vi. p. 340.	Afterwards plague.
1623 . .	Gujarat, Ahmedabad.	,,	Eth., p. 40.	Not severe, and stores proved sufficient.
1628-29 .	Hoozoor.	,,	,, p. 63.	Dogs and men eaten.
1629-30 .	Deccan.	,,	Dow, vol. iii. pp. 128-9, 341; Elliot, vol. vii. pp. 24-5, 263, 246-7, etc., *vide* text.	Also pestilence; spread over nearly the whole of Shah Jehan's dominions; extensive relief and more extensive mortality.
1650 . .	Ahmedabad.	,,	Eth., pp. 37 seq.	Lasted several years; grain imported; also plague of locusts and cattle disease.
1660 . .	Aurangzib's dominions.	,,	Elliot, vol. vii. pp. 246-8, 263; Dow, vol. iii. pp. 310, 341; Scott, vol. ii. p. 47; Eth., *vide* text.	Evidence only shows Bengal and Bombay as definitely immune.
1676-77 .	Hyderabad, especially Gulburga district.	,,	Mackenzie MSS., vol. vi. pp. 33-5; Scott, vol. ii. p. 47.	Apparently caused in the first place by excessive rains.

Date.	Locality.	State.	Reference.	Remarks.
1685 . .	Deccan and Hyderabad.	N.	Elliot, vol. vii. p. 328.	War prevented any relief.
1702-4 .	Bombay and Deccan.	,,	Scott, vol. ii. pp. 112-4.	..
1709 . .	Bombay district.	,,	*Der Neue Welt Bott*, pt. vi. p. 67.	Prices rose to thirty-two times the normal.
1718 . .	,,	,,	Eth., p. 40.	The extent of this famine is not known.
1737 . .	,,	,,	Baird Smith.	..
1739 . .	Bombay district.	,,	Scott, vol. ii. pp. 210-1.	Also pestilence.
1746-47 .	Bombay district, Kutch.	,,	Eth., pp. 26, 40, 60.	Cooked food given in Kutch.
1759 . .	Bombay district.	,,	Eth., pp. 17, 19.	Caused by war mainly; short; but also general over other parts.
1770 . .	Bengal.	N.B.	Orissa Report, *passim*. Hunter, ***Rural Bengal***, etc.	*Vide* text.
1781 . .	Madras.	,,	*Madras Manual of Admin.*, vol. i. p. 298.	Caused partly by Hyder Ali's devastations.
1782 . .	Bombay and Madras districts. Hyder Ali's country.	,,	Eth., p. 17.	Two and a half years; caused partly by burning of crops.
1783 . .	Bengal, Bellary, U.P., Kashmir, and Rajputana.	,,	Orissa Report, *passim*.	E.I. Company show greater energy.
1787 . .	South Mahratta country.	N.	Eth., p. 103.	Caused largely by locusts.
1790-92 .	Bombay and in Hyderabad, Gujarat, N. Madras, Kutch, Orissa.	N.B.	Eth., pp. 22, 50, 55, 105, etc.	In Dharwar women and children sold. Corn imported from Bengal.
1799-1801 to 1802-4.	N.W. Province, Bombay district, Central India, and Rajputana.	,,	*Vide* text, numerous	*Vide* text.
1806-7 .	Widespread, especially Carnatic.	,,	*Madras Manual of Admin.*, vol. i. p. 298. Eth., p. 12.	
1812 . .	Bombay, Agra, and Madras districts.	,,	Eth., pp. 33, 78, 126, etc., *vide* text.	Locusts in Bombay; pestilence in Ahmedabad, *vide* text.
1819-20 .	N.W.P., Rajputana, Deccan, Broach.	,,	Eth., p. 79; Baird Smith, etc.	In Broach for two years excessive rainfall; panic occurs; migration.
1820 and 1822.	Upper Sind.	N.	Eth., p. 18.	Ameers throw open Government granaries.
1824-25 .	Deccan and Bombay, Madras.	N.B	Eth., pp. 79, 95, 131-7. *Madras Manual of Admin.*, *op. cit.*	British Government appoint a Committee of wells and tanks; also relief. It was not acute in Madras.
1832-33 .	Sholapur, N. Madras.	,,	Eth., p. 101; B. Smith; various Comms., etc.	*Vide* text.

Date.	Locality.	State.	Reference.	Remarks.
1833-34 .	Gujarat, Kandish, N. Deccan, and parts N.W.P.	N.B.	Eth., p. 79; various Comms., etc.	*Vide* text. In Gujarat partly due to locusts. Nowhere very severe.
1853-55 .	Bellary, and S. Madras and Deccan, Rajputana, part of Bombay district.	,,	B. Smith; Eth., p. 80; various Comms., etc.	In Thana and Kolaba, followed by excessive rains in 1854, culminating in a hurricane.
1860-61 .	Parts of N.W.P., Punjab and Rajputana and Kutch.	,,	B. Smith, etc.	*Vide* text. First famine after abolition of E.I.C.
1862 . .	Deccan.	,,	Eth., p. 80.	Not very intense.
1856-57 .	Orissa, Behar, Ganjam, Bellary, Hyderabad, S. Mysore.	,,	Orissa Report, etc.	*Vide* text. Failure in Orissa in relief organisation.
1868-70 .	S.N.W.P., Punjab, Gujarat, parts of Central Prov., N. Deccan, Rajputana.	,,	1880 Comm., etc.	*Vide* text. Terrible mortality in Rajputana. British relief better organised, but financial strain.
1873-74 .	Behar, Bundelkhand, S.W. Prov.	B.	,, ,,	The "Panic Famine."
1876-78 .	Madras, Bombay, Mysore, and Hyderabad.	N.B.	,, ,,	*Vide* text.
1877-78 .	U.P., Kashmir.	,,	,, ,,	*Vide* text.
1888-89 .	Ganjam, Native Orissa States.	,,	1898 ,,	Relief too late.
1896-97 .	N.W. Provinces, Bengal, Bombay, C. Province, Berar, Madras, Delhi district, Parts C. India, Hyderabad, N.E. Rajputana.	,,	,, ,,	*Vide* text.
1899-1900 .	C. Province, Hissar dist., Bombay, Berar, Hyderabad, Rajputana (and Ajmere), Central India.	..	1900 ,,	*Vide* text. The greatest famine history records.
1899-1900 .	Baroda, Kutch, Kathiawar, Native states of C. Province, E. Punjab.	N.B.	,, ,,	The drought affected also, less severely, Bengal, Agra, S. Madras, Delhi district.
1900-2 .	Gujarat.	B.	Report on Relief.	..
1906-7 .	Darbhanga district.	,,	,, ,,	Extensive floods.
1907 . .	United Provinces.	,,	,, ,,	Extraordinary success in decentralised relief.

APPENDIX B

NOTES TO CHAPTER I

[1] 1770 is chosen as a convenient date, for then for the first time the E.I.C. acknowledged its responsibility, somewhat grudgingly, it is true, to take some steps to alleviate the calamity.

[2] It is related that the assistance which Aurangzib endeavoured to afford to his subjects in 1660–61 was considerably hampered by a corruption and cruelty upon the part of his officials in many ways similar.—Elliot, vol. vii. pp. 246–8.

The famine of 1739 was also not a little aggravated by the exactions of the tax-gatherers.—Scott, vol. ii. p. 211.

[3] This famine, it is true, was not the *causa causarum* of the dissolution of the Afghan Empire. Already in 1340 Bengal and Telingana had become independent. But it made hope of recovery impossible.

[4] Not until the seventeenth century is sufficient evidence discoverable to put the exact nature of the disease absolutely beyond doubt.

The visible marks of plague were swellings as big as grape or banana under the arms, and behind the ears, and in the groins, and a redness was perceptible round the pupils of the eyes.—Elliot, vol. vii. p. 337.

(*a*) Ikhal Nama. Muctamad Khan.

> "When it (the plague) was about to break out, a mouse would rush out of its hole as if mad, and, striking itself against the door and walls of the house, expire. If immediately after this signal the occupants left the house and went away to the jungle, their lives were saved; if otherwise,

the inhabitants of the whole village would be swept away by the hand of death."—Elliot, vol. vi. p. 406.

(*b*) *The Autobiography of Emperor Jehangir.*

"The daughter of the deceased Asaf Khan, who is in the house of Khan-i-Azam, told me a strange and wonderful tale. I made particular inquiries into its truth and write it on account of its strangeness. She said that one day in the courtyard of her house she saw a mouse falling and rising in a distracted manner. . . . She said to one of her female slaves, 'Take it by the tail and throw it before the cat.' The cat, delighted, jumped up from its place and seized it in its mouth, but immediately dropped it and showed aversion to it. By degrees an expression of pain showed itself on its face. The next day it was nearly dead, when it entered her mind to give it a little treacle. When its mouth was open its palate and tongue appeared nearly black. It passed three days in a state of misery, and on the fourth came to its senses. After this the grain of the plague appeared in one of the female slaves."

[5] They were composed, roughly speaking, of that section of the central Deccan which lies between the Tapti, Tungabhadra, and Kistna Rivers.

[6] In Colonel Etheridge's *Report* there is also evidence given of a similar legend in reference to the famine in the Poona district, *circa* 1200. How much reliance should be placed on such purely popular legends is a debatable point, and the evidence seems in this case scarcely convincing. A decade or more of years of comparative drought often terminating in a famine is by no means unknown. Thus in Khandesh the years 1769, 1772–73, 1775, 1779, 1782–83 were all exceptionally dry. A similar series of years of deficient rainfall is mentioned in various parts of the N.W.P., all within a comparatively small radius of Delhi in the first half of the nineteenth century—1824–25–26–27–28; 1832–33–34.

[7] Famine in Hindu law is one of the recognised causes of slavery. *Vide* Naruda; cf. W. Stokes, *Hindu Law Books*. According to Yajnavàlkya (one of the twenty sacred authors of the Smirti) a husband is not liable to make good the property of his wife taken by him during a famine.

[8] In the famine of 1290, indefinite mention of assistance is given. In those of 1345, 1396, 1423–24, 1494, 1596, 1630, 1660, the royal-stores were opened, or corn was imported. In 1687 the people were apparently compelled to give up their private stores. Mackenzie MSS., vol. iv. pp. 33–5. In 917 the merchants made fortunes by selling their supplies at excessive rates. *Vide supra*, p. 7. In 1540 the Portuguese near Santoun "very charitably bought rice, and cocoa-nuts, and jaggery, and millet, and sold them for a much lower price than they could have sold them, had they wanted to."—Correa, *Lendas de India*, vol. iv. pp. 131–2.

[9] The following, which is a translation from a contemporary native document in the Mackenzie MSS., is of interest owing to the curious policy of the Emperor's officials:—

"Then he who held the office of Dasakee, Munna Roosoon and Savarami, named Croostanee Bavanah Mawnu-Karoyoodoo, began to send his peons to the places where grain was buried in pots, which he took by force with other effects; he also exported money from the merchants and other affluent people: he was joined in this by Narrayana Royoodoo coming sometimes to Patakamoor, his place of residence, and to Condaveed Mamoola Cotah, where his brother Jangannah resided.

"At this time the first of Bahoolun of Badrapala month on the 4th of the Mahomedan month Jalakad, Avarangazaboo arrived; his army then besieging the fort of Golcondah."

Then follows an interesting list of prices, the fluctuations of which have been noted in the text. The famine spread over the "Carnatic, Veedarba, Mucha, Magada, Panda, Roolenda, Andra, Callinga, from the south sea to the east sea as far as Davaradee."—Mackenzie MSS., vol. iv. pp. 33–5.

[10] LETTER FROM R. A. PETER MARTIN, December 10, 1713.

"Anno 1709.—Hatten wir ein erbarmliche Trückne, woraus ein verderbliche Teurung, Hungersnoth u. Sterben erfolgt ist." Then follows a list of prices showing how the staple food rose from 1s. to 8 markal to 4s. to 1 markal.

He adds: "Gleichwie aber der gemeine Mann mit dem geld nicht aufkommen kan."

NOTES TO CHAPTER II

[1] Quoted by T. Morrison, *The Industrial Organisation of an Indian Province*, pp. 245–6.

[2] *Vide* Scott, vol. ii. p. 454. Shittabory was the Imperial Dewan at Patna.

[3] Hunter (*Rural Bengal*, p. 402) reckons it at 35 per cent.

[4] For extent of famine, *vide* Campbell's *Report on Famines of Last Century*, paras. 26, 29, 30.

[5] The English had been carrying on a long struggle with Haidar, the usurper of Mysore.

[6] This famine (1791–92) spread over the whole of the Bombay district as far as Marwar, as well as over parts of Madras. This territory was, of course, at that date, with the exception of the land lying immediately round the English ports, under native rule.

[7] The Government's efforts in Madras proved of little use, and 1200 are said to have died in the single month of April 1791. An attempt at direct gratuity in the form of doles of food was also made in Ganjam.—Dalyell, *Mem.*, pp. 17, 18.

[8] The system adopted was peculiar. The Ameers prepared lists of those other than traders and cultivators for relief. They gave up the Land Revenue and divided it into three and a half portions. Two portions they gave to

the Syruds and Muhammadans, who apparently were thus supported for five or six months; one they allotted to strangers and travellers, and the remaining half-portion to the Hindus.—Eth., *Report*, p. 18.

[9] Forbes' figures are given for what they are worth. According to him, at least 50,000 were saved by the public works, and an equal number by the importation of rice.—*Oriental Memoires*, vol. iv. pp. 291–5.

[10] 1801. Nawabvizier's assessment, Rs.1,35,23,474.
E.I. Co.'s ,, Rs.1,42,50,140.
The oppression of the Nawabvizier's government is undisputed.—Girdlestone's *Report*, p. 9.

[11] The actual figures are 29,010 garce imported, and 5943 consumed.

[12] Dalyell asserts that no deaths took place from actual starvation. The following are the vital statistics for Madras alone for the three years 1805–7:—

1805 . . .	3,225 deaths.
1806 . . .	4,902 ,,
1807 . . .	17,207 ,,

The famine lasted roughly from 1804–7.—Dalyell, *Mem.*, pp. 24–5.

[13] At first, instead of a bounty an attempt was made to stimulate trade by lowering the price of salt to exporters of grain into the stricken districts between the Godaveri and Toombudra Rivers. The actual bounty was not declared until August 23.—1880 Comm., pt. iii. p. 7.

[14] It was estimated that, in round numbers, 100,000 were employed on relief works at a cost of Rs.2,00,00,000; and that charitable relief cost Rs.3,50,000. — 1880 Comm., pt. i. para. 90.

[15] "At Bilhour, for example, only eight hundred could be admitted at a time, and there were never less than five thousand clamouring for work."—1837-38, Mr. Rose's *Report*; Girdlestone's *Report*, p. 48.

NOTES TO CHAPTER III

[1] The exact figures of these two canals at the two dates given are—

					Acres.
East Jumna Canal,		1837,	total area protected from droughts,		289,251
,,	,,	1860	,,	,,	783,981
West	,,	1857	,,	,,	*924,135
,,	,,	1860	,,	,,	*1,374,873

[2] Evidence was subsequently given that native craft might have been used.—Orissa Report, pt. iii. p. 146.

[3] It is estimated that from one-quarter to one-third of the population perished and nine-tenths of the cattle. The district was surrounded on three sides by desert and had only three roads on the fourth. Ultimately a certain amount of grain was imported on camels.—1881 Comm., pp. 79–80.

[4] The association representing the landowners believed that the spring and autumn crops only provided food for two months in the year, where as it was subsequently proved that they sufficed for eight.—1881 Comm., pt. i. p. 109.

[5] The famine of 1868 was actually greater in extent, some 300,000 square miles being affected. But the population was smaller, 21 million as compared with 36 million in 1877, and only a small fraction of the territory was under the British Government.—1880 Comm., paras. 76–8.

[6] Letter from the Secretary to the Government of India to Sir R. Temple, Jan. 16, 1877.

[7] From November 1877 to December 1878 the mortality was 1,250,000 in excess of the average.—1880 Comm., p. 28.

[8] Though the ignorance on the part of the local government as to the actual habits of the people in Ganjam is no doubt worthy of remark, the supposition that the price of Ragi would form a proper test of the intensity of the famine was not without justification. According to Church it is commonly used in some districts, as, for instance, the Patna division, Bhagulpur, Santal, etc., by the poorer and lower classes, and although not a popular food, is generally looked upon as a convenient substitute in time of famine. Accord-

* This is a rough estimate.

ing to Sir G. Watt it is perfectly edible and used in many South Indian jails. Moreover, although its nutrient value is lower (84·) than that of any other cereal, still the rice with which the natives mixed it could scarcely have helped much to compensate the lack of nitrogen. The nutrient ratio (*i.e.* ratio of albuminoids to starch) of Ragi is 1 : 13, while that of rice, which is the lowest after Ragi, is 1 : 10·8. Thus the only advantage which could be derived from the admixture of rice would be that the surplus of starch necessary in order to obtain sufficient albuminoids would be 14·9 in comparison with 23·2 in the case of Ragi.

[9] This was generally the case throughout India ; but the greatest difficulty was found in the case of the hill tribes, whose natural occupation was tree-felling and gathering the jungle products.—Cf. Report on the Famine in Madras Pres., 1896–97, p. 148.

[10] The year 1893 is taken as being the last year of normal conditions. In view, however, of the irregularity of climatic conditions a certain deduction should be made from the percentage given.

[11] The remark is true of almost the whole of India, but applies especially to the Bombay Presidency. Over 39 per cent. of the total expenditure was upon roads. The opinion was subsequently expressed that the need for roads in that Presidency was not urgent, that road metalling was " even less useful," and " that, speaking generally, the utility of the work was not great."—Report of Irrigation Comm., pt. i. para. 324.

[12] Compare, for example, "*Prosperous*" *India*, W. Digby, 1901, p. 137. The calculation is made on the basis of comparison between the increase of population which was actually shown by the Census Reports of 1891 and 1901, and what on the basis of preceding increase he considers " normal."

[13] Special emphasis was laid in the Report on the rise in wages (*vide* Report on Administration of Famine Relief, 1907–8, p. 152), and in the Memorandum on the Results of Indian Administration (p. 29, Cd. 4956) the opinion was expressed " that there has been a general rise in the standard of wages, and the rise is more than proportionate to the rise

in prices, which has necessitated it." "It is no exaggeration to say that labour has been in a position to dictate its own terms."—*Ibid.* In view of the official statistics on wages and prices the contention needs certain qualifications, and the rise in real wages can only to a limited degree be accepted as a cause of the ease with which the effects of drought on this occasion were met. The following figures will show that the rise in real wages was slight in at least two districts, and that it applied only to the last decade, while the rate in 1888 was considerably higher. The truth of the matter probably is that only in the neighbourhood of towns where the demand had greatly increased, and the supply of suitable labour was comparatively deficient, could labour dictate its own terms.

RATE OF WAGES IN U.P.

1888, Rs.4·44 monthly. 1899, Rs.4·42 monthly.
1897, Rs.3·99 monthly. 1907, Rs.4·47–4·79 monthly.

	COST OF	WHEAT.	BARLEY.	JAWAR.
Cawnpore district	1888	2·471	1·926	2·214
	1907	3·749	1·564	2·474
Meerut district	1888	2·667	1·838	2·145
	1907	3·506	2·398	2·64

Vide *Statistics, Prices and Wages*, 1908.

NOTES TO CHAPTER IV

[1] The most noticeable examples of famines largely created by the depredations of locusts in the nineteenth century

are 1803 in Kutch, 1812–13 in parts of Bombay, 1834 in Ahmedabad; while in 1869–70 75 per cent. of the crops after the renewal of the rains were devoured in Marwar.—*Vide* Eth., *Report*, pp. 22, 78, 39; G., p. 355.

Rats, apart from their danger as infection carriers, caused serious distress, 1814–15, in Kutch and after the famine of 1877 in Bombay.—*Vide* Eth., *Report*, p. 21; 1880 Comm., pt. i. para. 62.

[2] The 1898 Comm. (p. 287) appropriated the subscription funds to—

(1) The purchase of small extra comforts.
(2) The care of orphans till homes could be found for them.
(3) The relief of the deserving proud.
(4) Assistance in restoring those who had lost their positions during the famine.

[3] The Darbhanga famine of 1906–7 presents certain peculiarities from this point of view, as owing to the floods no relief works were possible during the first weeks of distress. It was subsequently concluded from the majority of women on the works that unexpectedly large numbers of men must have emigrated.—Report on Relief Operations in Delhi Famine, 1906–7, p. 148.

[4] 1890.—The Government was forced to import corn into the hill districts of Kumaun and Garhwal. *Vide* Blue Book, 1890, LIX., "Correspondence *re* Scarcity in K. and G.," p. 4.

1907.—The Government imported corn in boats to the flooded districts of Darbhanga. *Vide supra*, *op. cit.*

[5] Resolution:

> "The Government of India concurs in the view that large works are preferable to small works as the backbone of famine relief, whenever the necessity arises for employing relief labour on an extensive scale."—T. W. Holderness, T. Higham, Report on Famine Relief Works, 1897, p. 13; of. 1898 Comm., pp. 319–23.

It should be noted that the recommendation is limited by the extent of the famine, and the advice of the following Commission is only relative.

[6] In Bombay during the Famine of 1899–1900 a minimum wage was paid accompanied by fines which reduced the amount ultimately paid in some cases to 25 per cent. below the minimum. Nash, when travelling through the district, reported on the extreme inadequacy of this dole, and expressed it as his opinion that the small value of the work performed by its recipients was in reality due to inefficient administration.—*The Great Famine*, pp. 32, 169. His opinion was subsequently corroborated by the Commissioners, who declared that "the minimum wage for able-bodied workers has been the stumbling-block of famine administration."—1901 Comm., pp. 30, 10.

[7] That in the classification used in the codes up to 1898,

(*a*) Able-bodied, accustomed to the kind of work given,
(*b*) Able-bodied, not accustomed to the kind of work given,
(*c*) Able-bodied, but not labourers,
(*d*) Not able-bodied, but fit for light labour,

only in the Bombay Presidency was it carried out into practice. Various other systems were adopted elsewhere. But the general effect proved to be a tendency to payment on the basis of the value of the work actually performed. The best reformed classification, in the opinion both of Mr. T. Higham and subsequently the Commissioners, was that adopted in the N.W.P.:

X. Special.
Y. Diggers.
Z. Carriers.

Below these were grouped the children under twelve years.—*Vide* T. Higham, *Report on Management of Relief Works*, 1897, pt. viii. p. 2; 1898 Comm., pt. i. p. 112 seq.

NOTES TO CHAPTER V

[1] Over-population may, of course, be due either to a more rapid growth of the population than of its productive capacity, or to a decrease in its productive capacity caused by a sudden disaster, or by a diminution in the demand for the commodities produced in any district, or by actual exhaustion of the soil. Examples of excessive rapidity in the growth of population in the past are rare. Dr. Ranken, writing in 1836, said that the inhabitants of the N.W.P. and Marwar, "have advanced within reach of many improvements in the physical conditions of society; but having made no corresponding acquisitions in intelligence, their . . . minds are yet unable to turn the advantage of a better system to account. Hence animal instinct predominating over foresight and enterprise, the population has augmented faster than increasing agriculture and commerce have extended."—Quoted Nathan, *Plague in India*, vol. i. p. 87.

Evidence was also given in the Papers *re* Partial Census in Famine Districts, 1878 (p. 14), to show that the inhabitants of South India, owing to peace and tranquillity, had increased up to the limit of the sustaining power of the soil.

But in neither case did the evil prove permanent.

[2] "Die Indianer nicht allein alles Regenwasser bis auf den letzten Tropffen in grosse Weyher auffangen, sondern auch Schriffreiche Wasser mittelst unendlich vieler Gräben in eine Menge grosser Teichen dergestalt hauffig verleiten, dass offtmal der ganze Strom hiedurch erschöpfft u. ausgetrüchnet wird."—*Der Neue Welt Bott*, pt. vi. p. 67.

[3] The Report does not assert it as a fact, but as "a common native belief."—Pt. iii. para. 8.

[4] Grain was imported in the drought of 1890. The description of the condition of the inhabitants of these districts is important in its bearing upon the problem of the effects of economic transition in India.

"Their fields produce little more than is required for their sustenance, and throughout the region there is an entire absence of those traders and wholesale grain dealers who are found in every part of the plains. The peasantry have been described by the Commissioner, Sir Henry Ramsay, as probably better off than any peasantry in India. The cultivators and landowners live on the whole of their own stocks, of which they have usually a six months' supply in hand. The stocks in the regions of G. and K. . . . are almost exhausted; the people can pay for supplies if they could be procured."—Extract from Letter from Chief Secretary of Governor of N.W.P. and Oudh; Correspondence *re* Scarcity in K. and G., 1890, p. 4.

This report, however, should be contrasted with that of Dr. Rennie, who investigated the conditions of the people in connection with the outbreak of plague in 1850. "The filth is everywhere—in their villages, their houses, and their persons. . . . Their dwellings are generally low and ill-ventilated, except through their bad construction. . . . The food of the majority is bad and insufficient."—Quoted Nathan, *Plague in India*, vol. i. p. 92.

The quotations are not in fact wholly irreconcilable; nor is it necessary, accepting the truthful relation of impressions, to presume great progress in hygiene or general welfare. The standard of living was, and is, low; the wants of the people are few. But in bad years and good years alike the people are generally able to maintain that standard and fulfil those wants.

[5] As, for instance, in 1873-74, 1877-78, 1898.

> "The revenue derived from the railways during the year 1874 was £770,856 in excess of the previous year. . . . The improvement that took place in the railways during this past year is due principally to the large traffic in grain for the famine-stricken districts."—*Rail. Report*, 1874-75, pp. 26-7.
>
> "The satisfactory results obtained must, to a certain extent, be attributed to the large traffic in grain caused by the famine in South India. It

has been calculated that the receipts from this source alone were about £600,000. But, while accepting this estimate, it must be borne in mind that much traffic of a more profitable kind was lost in consequence of the preference given to consignments of grain to the famine-stricken districts, and of the inability of the railways, for want of rolling stock, to take much that was offered."—*Rail. Report*, 1877–78, sec. 52.

"The increase of the earnings from goods traffic was chiefly due to a larger traffic in 'merchandise general,' mainly in the grain and seed traffic to famine-stricken districts."—*Rail. Report*, 1895, p. 105.

It is impossible to estimate the extent to which the profits in 1900 were increased owing to famine. For, though for the first time a net gain accrued from railways in that year to the State, and although "the increase in the quantity of goods carried was due to the famine," the net profits in 1901 were considerably greater (Rs.11,541,000 as compared with Rs.872,000), and it is impossible to calculate what the profits might have been had no famine occurred.—Cf. *Rail. Reports*, 1899–1900, p. 104; 1901, pp. 8 and 10; 1902, p. 13.

[6] Sir W. Robinson maintained that "no margin is left for extraordinary vicissitudes of season, and the demand is so heavy and searching that little room is left for the accumulation of agricultural capital to meet contingencies such as have overtaken the population."

His assertion was subsequently discussed, and it was concluded that the ryot had improved his position considerably since 1856 and was by no means poor. Figures were also produced to show the incidence of the land revenue per acre and per head of population. It varied from Rs.3·0 in British Burma to Rs.1·8 in Oudh per acre, and from Rs.2·55 to Rs.1·3 per head in the same districts respectively. Actually the lowest figure was that of Madras, Rs.1·1 per acre, and Rs.1·03 per head, for dry land. But including water rent they amounted to Rs.1·75 and Rs.1·4.—Acc. and Papers, 1878, LIX., pt. i. pp. 2, 14.

[7] The figures of the Census Report of 1901 show, as compared with those of 1891, after systematising the two different plans on which they were drawn up, the following variations in the proportion of the population on the land :—

1891 . . .	. 645 per mille.
1901 . . .	. 675 ,,

But though these figures, the report says, need qualifying, " the net result, however, for India as a whole shows a large shifting from the non-agricultural to the agricultural head." —Census Report, 1901, vol. i. p. 208.

[8] Estimated yield of raw cotton—

(400 lb. bale)	1901–2	3,566,296.
	1910–11	4,303,000.
Yarn produced in Indian mills—		
(000 lb.)	1901–2	572,938.
	1910–11	576,996.
Woven goods—		
(000 lb.)	1901–2	119,651.
	1910–11	230,861.

Statist. Abstract, 1913, pp. 127 and 263.

[9] The most important of these Acts are—Bengal Tenancy Act, 1859; Rent Act, 1885; Madras Rent Recovery Act, 1865; Estates Land Act, 1900; Bombay Rent Act, 1879; Agra Province Rent Act, 1881; Tenancy Act, 1901; Central Provinces Tenancy Acts, 1883 and 1898; Oudh Rent Act, 1886; Punjab Tenancy Act, 1887; Land Alienation Act, 1900; N.W.P. Rent Act, 1901; Bundelkhand Land Alienation Act, 1908.

[10] There are certain material points of difference between the Land Co-operative Societies in India and those in Germany. The former are at once more democratic and more bureaucratic than the latter. Any society of ten members can be registered, whereas in Germany societies are not usually founded in districts with less than 400 inhabitants. They are in India under the patronage of the Central Government, stamp duties and income tax being usually remitted, and under the direct control of the local

government. In Germany only members can be on the Committees, but they are generally the more wealthy ones. Moreover, in that country loans can be called in at four weeks' notice, and at the top of the whole organisation stands a Generalanwaltschaft and Zentraldarlehnskasse. Of more recent growth are the co-operative supply and co-operative insurance departments.

[11] The most recent statement of the progress of the co-operative movement in India, 1911–12, shows a growth in the numbers of rural banks from 740 (1906–7) to 7562 (1911–12), and a profit made in 1911–12 of Rs.6,27,689. The membership of all the various banks together show an increase from 1906–7, 90,844, to 1911–12, 403,318, with a capital of Rs.3,35,74,162.

[12] Financial decentralisation was introduced by Lord Mayo, 1870. To provide for the famine of 1877, Bengal alone raised £300,000 by extra taxation. At this date was introduced the principle of partial Provincial self-responsibility in famine, aided by mutual Provincial assistance, and the enforced contribution of all classes against periodical draughts.

The Indian people's Famine Trust was started by the gift of the Maharaja of Jaipur of 16 lakhs of Government securities, for relief in famine in 1900.

APPENDIX C

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1909	LXII.	Administration of Famine Relief in N.W.P. and Orissa.

NOTE.

The various Commissions have been referred to in the footnotes simply with the date followed by Comm.—*e.g.* "1880 Comm." for "1880 Famine Commissions"; "80 Comm., pt. ii." for "Further Report of 1880 Famine Commission, etc." Reports other than those of Special Commissions have been referred to, either by the name of the Reporter, or by the name of the district about which the Report is given, according to the ordinary usage, *e.g.* "B. Smith's Report" for "Report of B.S. on 1860 Famine in N.W.P."; "Orissa Report" for "Report of Comm. on Orissa and Behar Famine, 1866." The references are given to paragraphs or pages as clearness demands.

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Note.—Geddes is quoted as G. in footnotes; Etheridge, as Eth.

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